2020

A case study on co-teaching in a high-performing urban high school in Southern California

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A CASE STUDY ON CO-TEACHING IN A HIGH-PERFORMING URBAN HIGH SCHOOL IN SOUTHERN CALIFORNIA

A dissertation proposal submitted in partial satisfaction

of the requirements for the degree of

Doctor of Education in Organizational Leadership

by

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February, 2020

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This dissertation proposal, written by

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under the guidance of a Faculty Committee and approved by its members, has been submitted to and accepted by the Graduate Faculty in partial fulfillment of the requirements for the degree of

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ACKNOWLEDGEMENTS

First I would like to acknowledge my mother, Miriam Hofland, father, Weslie Hofland, sister, Michelle Hofland, nieces, Mckenna Morey, Kathryn Morey, Jacqueline Morey, and Katelie Hofland, nephew Connor Hofland, brother Bradley Hofland and sister-in-law Meghan Hofland, Michael Morey, Michelle Morey and Tommy Morey for encouraging me all these years to never give up on my goals. My Chair, Dr. Lund and my committee members Dr. Linda Purrington, and Dr. Joseph Green for not giving up on med. Georgia Sadler and Blair Sadler for being second parents and pushing me to finish. Aimee Nowland and Javiar Barrios for the many meals, encouraging words, listening, and editing, and your wonderful daughters Ava and Elise Barrios who brought sunshine into my life. Jane Enterline for your lifelong friendship and lending me your cabin to write. Patty Tamez-Simplicio for lending me her IPad for research and words of encouragement. Ryan McNeill, Anait Sininian, Patricia Tampez-Simplicio, Juan Tajoya, Ernesto Campos, Andrew Vasquez, Barbara Rainen, Tanesha Blair, Claudia Lopez, La Shun Washington, Mimi Vallone, Aleesha Haase, Andrew Vasquez, Thomas Ramirez, Francine Metcalf, and Patrick Johnson, for your daily encouragement. Diana Massaria, my leader who has helped me along the way. Arlene, Veronica, Araceli, the NPS Dream Team and all the rest of the special ed team. All the teachers I have worked with over the years. Carlos, for being there for me. Leanna Trojan for her friendship and the beautiful headshot. All the teachers and the administration at the school I studied. John Kircher for being a lifelong friend, lending me his cabin, and the many days of skiing. Randy and Debbie Doyle for setting up my getaway place to stay so I could write, all the skiing days, meals, encouragement and wonderful conversation. Felicia Hodges, Michelle Ross, Nancy Barker, Kimberly Hudson Caldwell, Tracey Macrum, Eric Chevasson, Judy Nagler, Linda Rosalik, Christina Brearly, and Lindsey Aikens. Katy Noll and

the rest of my C6 cohort. Mara, Nati, Cecila, Pat, Ann, and Yolanda my book club crew that helped me take breaks and all my other wonderful friends who have stood by me all these years. Jim Hannotte for the loan that started me educational journey. Thank you to all my friends and family. I could not have done it without your support.

DEDICATION

This is dedicated to my mother, Miriam Joyce Hofland, who was always there for me. Who loved me no matter what and put my needs ahead of hers. For the laughter, the love, and the joy she instilled in me. For always telling me I could be anything and do anything and the countless hours of editing. She is now my editor in the sky. I miss you so very much.

VITA

Leadership Experience

Litigation Coordinator, Due Process 2015 – Present
Division of Special Education, Los Angeles Unified School District

- Coordinate the implementation and compliance with special education legal mandates.
- Liaison with central office, local district offices, Division of Special Education, and LAUSD
- Charter SELPA staff in matters related to due process.
- Represent District in all aspects of formal due process resolutions, including mediation and
- settlement processes involving the Office of Administrative Hearings (OAH).
- Coach, mentor, and provide training to due process staff, local districts, school sites, and
- division staff in all areas related to Individualized Education Program (IEP) dispute resolution.

Specialist, Compliance, Support, & Monitoring
Division of Special Education, Los Angeles Unified School District 2013 - 2015

- Represented District in formal due process resolutions and settlement process.
- Analyzed data, investigated, and researched pleadings for substantive and procedural violations.
- Coached, mentored, and assisted school sites, and Special Education Service Center personnel in
- interpreting agreements, special education law, and District policy.
- Coordinated, collaborated, and conferred with District personnel with a high degree of confidentiality.

Program Specialist
Special Education Service Center North, Los Angeles Unified School District 2011 – 2013

- Ensured federal, state, and district policy is adhered to in order to meet the needs of students with
- IEP's.
- Provided differentiated on site, and district wide professional development for groups of 3 to 100
- adults.
- Guided and supported school site personnel, students, and families with behavior interventions,
- instructional strategies, curriculum, and assessment.

Co-Founder, Governing Board Member
New Open World Academy (NOW), Los Angeles Unified District (LAUSD), K-12 PILOT School 2009 - 2011

- Collaborated with design team members to write the Request For Proposal for a
- K-12 Pilot School.
- Wrote the intervention and special education/inclusion plan.
- Recruited and interviewed staff members.
- Assisted in resolving and implementing critical school decisions.

Response to Intervention and Instruction Coordinator (RtI2)/ Mentor Teacher,
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Bryson Elementary, LAUSD, South Gate, CA, 2009-2011

- Assisted teachers with data analysis and strategies for differentiation in the classroom.
- Led professional development for staff members on RtI2, differentiation,
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- Collaborated with administrators and staff to develop procedures for school site operations, and
- emergencies, as well as facilitating COST and SST meetings.

Adjunct Faculty ELD Practicum & Special Education Consultant
Pepperdine University, Masters of Art in Education and Teacher Credential Program 2003 - 2009

- Instructed beginning teachers in ELD strategies using the SIOP Model.
- Supervised beginning teachers in a practicum setting on ELD instruction.

- Provided a series of Special Education trainings for Masters in Education program.

Curriculum, Assessment & Intervention Coordinator (Title I)/School Site Council 2000 – 2002
Acting Administrator 2002
Early Education Special Day Class Teacher K-3 (mild-severe)/BTSA Provider 2002
Intervention Coordinator/Kindergarten Teacher/School Site Council/BTSA Mentor 1998 – 2000
Woodlawn Avenue Elementary, LAUSD, Bell, CA

- Assumed all administrative responsibilities for Principal for one month.
- Initiated and launched parent workshops and supported Parent Advisory Committee.
- Supported teachers in data analysis, differentiation, reading instruction, behavior intervention, and
- coordinated all State Testing.
- Supervised intervention in English Language Development, math, and reading

English Second Language Specialist & Bilingual Program Coordinator/School Site Council
Rose Park Elementary Salt Lake City Unified, UT 1996-1998

- Created and implemented K-5 Bilingual and K-6 English Language Development (ELD) program.
- Developed, planned, implemented, and instructed Spanish Language Parenting Classes,
- ESL Classes for families, and Spanish Language Family Workshops.
- Oversaw English Language Development Program grades K-6.
- Hired, trained, and supervised bilingual teachers, bilingual assistants, and childcare.
- Coordinated and conducted all Spanish Language and English Language Development Testing.

Education & Credentials

- **Doctoral Candidate, Educational Leadership, Administration & Policy** 2019
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- **Tier II Administrative Services Credential**, 2020
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- **National Board for Professional Teaching Standards** 2013
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- **Masters of Science, Educational Administration** 2000
  Pepperdine University, Graduate School of Education and Psychology
- **Tier II Education Specialist Credential** 2007
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- **Clear Cross-Cultural Language and Academic Development (CLAD)** 1991
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  California State Polytechnic University Pomona, CA

Related Experience

- **Interview Committee Huntington Park High School Transformation** 2011
- **Consultant** 2010 *STEPS Manuals for the California and Common Core Standards*
- *McDonald and Woodward Publishing, Dr. David Silverberg*
- **Panelist** 2010 *"Teacher Hour" KLCS Data- Driven Decision Making RtI2*
- **Trainer: California Formative Assessment and Support System (CFASST)** 1999 – 2009
- **Trainer: Brain-Based Education & Towards Equity**
- **District Intern Instructor & Evaluator**
- *Los Angeles Unified School District, Los Angeles, CA*

- **English Second Language /Bilingual Program Consultant, Annenberg Leadership Team** 1996 –1998 *Salt Lake City Unified School District, Salt Lake City, UT*
- **Adjunct Faculty for Masters in Education Program** 1996-1998 *University of Utah, Salt Lake City, UT*
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ABSTRACT

The Least Restrictive Environment (LRE) component of IDEIA 2004, NCLB requirements, and research indicating increased achievement for students with disabilities in the general education environment, have led to the inclusion of students with disabilities into the general education classroom and the use of co-teaching model is increasing throughout the United States. Research indicates that, for inclusion to be successful, administrators and general education teachers need to receive adequate training in special education, supports, and resources to implement successful integration and inclusion of students with disabilities in the general education setting (Ainscow, 2000; Burton & Pace, 2009; Cox, 2008; Praisner, 2003; Villa, Thousand, Meyers, & Nevin, 1996). Co- teaching has shown to be an effective model of inclusion that can support the requirements of NCLB and IDEIA (Bryant-Davis, Dieker, Pearl, & Kirkpatrick, 2012; Friend, 2008; Villa et al., 1996).

The purpose of this single case study was to determine the fundamental attitudes, practices, relationships, structures, programs, and supports that contribute to successful co-teaching partnerships in a high school setting. This study used a survey, classroom observations, and semi-structured interviews to gather data to determine what characteristics contribute to successful co-teaching. This case study utilized purposeful case sampling. Participants were chosen from one of the highest performing high schools in a large urban school district in Southern California.

The research showed that small schools that incorporate small group work with consistently scheduled meetings for collaboration foster community and contributes to the success of co-teaching. Curriculum that lends itself to small group work is a factor in successful co-teaching. Additionally, having adequate materials, supplies, and access to the latest

technology supports successful co-teaching program. Furthermore, special educators staying with students for 4 years was found to be beneficial for both general and special education students and co-teaching partnerships. Experience and time in a co-teaching partnership was shown to be a factor in the success of the co-teaching model. Overall, the co-teachers attitudes were positive and the research showed that all of the teachers worked well together, had respect for the special educators, and all but one felt that co-teaching had improved their teaching practice. Respect and trust were shown to be the most important aspects for a successful co-teaching partnership. Similar to the research for the past 40 years, all the co-teachers requested more training on co-teaching and the general educators wanted more training on special education strategies and co-teaching.

Chapter 1: Introduction

Background

The American with Disabilities Act (1990) defines a person with a disability as a person who has a physical or mental impairment that substantially limits one or more major life activity. Throughout history, students with disabilities have faced barriers to receiving an education. It was not until 1971, "that one group of learners, those categorized as 'having severe learning difficulties' were deemed to be even worthy of education" (Ainscow, 2000, p. 76). Before the enactment of the Education of All Handicap Children Act, known as P. L. 94-142 (1975), approximately 4 million children were not receiving appropriate education, and another 1 million were excluded (Martin, 1997). Glancy, Morse, and Russo (1998), further reiterated that "historically, it was more convenient to remove the disabled from the social mainstream than it was to integrate them in public schools or to provide them with jobs or training" (p. 179). These attitudes persist even today, especially pertaining to students with behavioral and emotional disabilities (Kozol, 2005; Kuglemass, 2006; LaNear & Frattura, 2007).

An example of early exclusion was the 1919 Wisconsin Supreme Court case, *Beattie* v. Board of Education (1919). Merritt Beattie was a boy who was crippled from birth; however, he had average intelligence and was keeping pace with his same-age peers. The school board's description of Merritt delineates the attitudes of the public at that time:

> His physical condition and ailment produce a depressing and nauseating effect upon the teachers and school children; that by reason of his physical condition he takes up an undue portion of the teacher's time attention, distracts the attention of other pupils, and interferes generally with the discipline and progress of the school. (*Beattie* v. Board of Education, 1919, p. 52)

The Court upheld the school board's decision to exclude Merritt, citing that Merritt's presence was "harmful to the best interests of the school" (*Beattie* v. Board of Education, 1919, p. 55). The Court decided it would be better for Merritt to be placed in a school with deaf and hard of hearing students because students with these disabilities would better accept Merritt's "defective appearance and speech" (*Beattie* v. Board of Education, 1919, p. 52). The *Beattie vs. Board of Education* (1919) set precedence for 56 more years of exclusion from general education classrooms and schools for students with disabilities. It was not until 1954, with the *Brown vs. Board of Education (*1954) Supreme Court decision that a precedent was set for future right to education cases on behalf of students with disabilities.

Parent advocacy has played a key role resulting in groundbreaking changes and legislation for students with disabilities (Eloff, Englebrecht, Oswald, Swart, & Yssel, 2007; Soodak, 2004). In 1971, after many years of advocacy by parents, students with disabilities, and advocacy groups, the landmark legislation for students with disabilities, the Education of Handicapped Act (EHA), P. L. 91-230., was passed into law (Glancy et al., 1998; Hunt & Marshall, 1999; Soodak, 2004). A student with a disability, however may not necessarily define them in need of special education services. A student with an Individual Education Plan (IEP)/special education student is described as a child with a disability who falls into one of the 13 categories of special education and needs "special education" and related services to access the general education curriculum (IDEIA, 2004).

EHA guaranteed students with disabilities the right to a *free and appropriate public education* (FAPE; Eloff et al., 2007; Glancy et al., 1998; Hunt & Marshall, 1999). In 1975 EHA was expanded to the Education for All Handicapped Children Act known as EAHCA (P.L. 94-142). FAPE is defined as a free and appropriate public education consisting of special education

and related services, at no cost to parents, specifically designed to meet students' unique individual educational needs (EAHCA). On March 22, 2017, the U. S. Supreme Court issued a ruling (*Endrew F*. v. Douglas County School District, 2017) further clarifying educational progress in regards to FAPE, as "markedly more demanding than the merely de 'minimis' test applied by [many courts]" (p.14). The Supreme Court's unanimous opinion, written by Chief Justice Roberts, further stated, "A child's educational program must be appropriately ambitious in light of his circumstances" (p.14). In 2003, Chairman Michel N. Castle stated in the opening statement of the hearing before the subcommittee on education, "with the passage of Individuals with Disabilities Act, 1975 the doors of opportunity were opened" (IDEA: Focusing on Improving Results for Children with Disabilities, 2003,p. 7). Since the passage of EHA and subsequently Individuals with Disabilities Education Act (IDEA) in 1990 (with the re-authorizations in 1997, 1999, 2004), millions of students with disabilities have received FAPE (U.S. Department of Education, 2007).

The Individual with Disabilities Education Improvement Act of 2004 (IDEIA) requires public school systems to develop an appropriate *individualized education program* (IEP) for each child. According to Hunt and Marshall (1999), an IEP is the "heart of special education law" (p. 15); it is a legally binding document that outlines the goals, objectives, services, modifications, accommodations, amount of time in both special and general education, and the date services begin and their duration. Per IDEIA, specific special education and related services outlined in each IEP reflect the individualized needs of each student. Every child that qualifies for special education services has his/her own IEP.

The EHA and IDEIA call for the *least restrictive environment* (LRE), which refers to the directive that students with disabilities are to be educated to "maximum extent appropriate" with

children without disabilities (EAHCA,1975). The service delivery for students with disabilities varies depending on the student's needs and the recommendations of the IEP team. Service delivery for students who qualify for special education services follows a continuum of services but must follow the least restrictive environment guidelines.

Students with disabilities are to be placed in the setting that is the least removed from the general education setting and can provide the most appropriate education for the student. Service delivery models for students with disabilities in the general education setting are being provided in various models. The least restrictive being full inclusion in the general education classroom with services being delivered in the classroom. These services are delivered in a variety of models such as (a) co-teaching; (b) a teaching assistant; and (c) daily, weekly, or monthly consultation with a service provider or a specialist working inside the classroom to provide services (Hunt & Marshall, 1999; Rea, McLaughlin & Walther-Thomas, 2002).

Predominant Issues Affecting Special Education

Funding. A predominant issue with special education since the law's inception, is that IDEA has never been fully funded by the federal government (House of Representatives, 2003). Lyn C. Woosley, a former U.S. Representative for California's 6th congressional district, in her address to the 108th Congress (2003), stated:

> Even though federal funding for IDEA has been increasing, it is still more than $10 billion short this year. Special education costs for local districts are rising faster than federal spending for IDEA. If Congress continues to increase funds for IDEA at this rate, it will be the year 2035 before the federal share of IDEA is fully funded. Our children both those with and without disabilities cannot wait 32 years to be fully funded. (p. 4)

The National Center for Education Statistics (NCES) reported that in 2012-2013, 6.4 million (13%) public school children and young adults, ages 3 to 21, received services under IDEA Part B (U.S. Department of Education, National Center for Educational Statistics NCES, 2016). The lack of federal funding has caused added monetary and personnel burdens on individual states and the public school system (House of Representatives, 2003). Additionally, these federal funds set aside for training were specifically dedicated to the training of special education teachers with no funds allocated for training of general educators, which encourages the chasm between general and special education teachers (Glancy et al., 1998). As Dianne Talarico (House of Representatives, 2003), the superintendent of Canton City school district, passionately stated in her address to the 108th Congress:

> We need to dramatically enhance and expand personnel preparation and personnel development for educators. There is a significant shortage of fully qualified special education teachers. It is the worst shortage in the country and is only growing. IDEA should expand professional development support for school districts and universities to train educators in general, special, and gifted education, both pre-service and professional development. Teachers must know how to adapt and modify the core curriculum within the realm of the adapted curricular standards. We need to do a better job finding effective ways to accommodate and to teach students who offer us the greatest challenges. We cannot simply turn them away. (p. 9)

There is an ever-increasing population of students needing special education services, especially with the recent rise of autism and other health impairment (OHI; Boe, Barkanic & Loew, 1999; Glancy et al., 1998; House of Representatives, 2003; Samuels, 2016; U. S. Department of Education, 2007). Students from ages 6-21 receiving special education services

under the category of autism rose 165% from the 2005-2006 school year to the 2014- 2015 school year (Samuels, 2016). Data from the U.S. Department of Education National Center for Educational Statistics, (2016) shows that in 2000-2001, 93,000 students were served between the ages of 6-21 under the eligibility of autism, increasing to 538,000 in the 2014-2015 school year. Likewise, students served under the eligibility of OHI increased from 55,000 in 1999-2000 to 817,000 in the 2014-2015 school year (U. S. Department of Education, NCES, 2016).

Special education teacher shortage. In a review of research regarding the chronic shortage of special educators, McLeskey, Tyler, and Flippen (2004) reported that 98% of the nation's school districts report special education teacher shortages. In 2014, 49 states reported a shortage of special educators (Bureau of Labor Statistics, 2015). Furthermore, The U.S. Department of Education in 2016 reported that over 12% of special educators leave the profession at double the rate of their general education peers, while 51% of school districts nationwide and 90% of high-poverty schools have reported having difficulty recruiting special educators (Brownell, Smith, McNellis, 1997; U. S. Department of Education, 2016).

Combine the desperate need for special education teachers, the rise of inclusion, and the lack of funding for special education, general education teachers are becoming more and more responsible for educating students with disabilities (Bureau of Labor Statistics, 2015). According to Boe et al. (1999), there simply are not enough qualified special education teachers to meet the needs of students requiring special education services, further necessitating the need for training of general education teachers and best practices in inclusion, such as co-teaching.

Inclusion

Inclusion. is a well-known term in literature and school systems; however, it is not a term defined in special education law (Bateman & Bateman, 2001). For that reason, there is no

agreed-upon definition of the term, and the meaning of inclusion can vary from person-to-person (Hunt & Marshall, 1999; Villa & Thousand, 2005). According to Bateman and Bateman (2001), Hooks and Swick (2005), and Hunt and Marshall (1999), inclusion usually refers to the practice of students with disabilities being educated in the general education classroom alongside their non-disabled peers for at least 80% of the school day, with the appropriate supports provided for the student to be successful. Sacks and Watnick (2006) stated "the intention of inclusive practice is the modification of the classroom environment so that all students receive maximum educational services" (p. 67).

Inclusion provides special education students with positive peer role models for social skills, appropriate behavior, and language development (Mitchum, 2005; Sacks & Watnick, 2006; Schumm & Vaughn, 1995). Successfully implemented inclusion programs give special need students access to grade-level curricula, increase their self-esteem and personal competence, provide a more natural social interaction with their typically developing peers, and they have shown to increase achievement for both special education and general education students (Ainscow & César, 2006; Hooks & Swick, 2005; Idol, 2006; Sack & Watnick, 2006; Weiner, 2003).

Another rationale for inclusion is that recent research has shown that this practice has positive social benefits and higher academic results for both general education and special education students (Ainscow, 2000; Sindelar, Shearer, Liebert, & Yendol-Hoppey, 2006; U.S. Department of Education, 2007; Weiner, 2003). According to Rea et al. (2002), it helps teach both groups of students how to learn and be contributing members of society. Weiner (2003) further reiterated, "general education students can achieve academically as well as or better than their counterparts in non-inclusion classes" (p. 16). Ainscow (2006) and Sindelar et al. (2006)

found similar results about achievement of general education students in their studies of inclusive schools. Some reasons for this are that students in inclusion classrooms receive (a) more individualized instruction than students in non-inclusion settings, (b) more administrative support, (c) instruction from teachers with more specialized training, and receive the benefit of (a) teacher collaboration, (b) peer role models, (c) cooperative groupings, and (d) qualified assistance in the classroom (Ainscow, 2000; Sindelar et al., 2006; Weiner, 2003).

Co-teaching. Due to the rise in special education students and the increase in inclusion, general education teachers need of training and skills to instruct students with disabilities, the passage of No Child Left Behind (NCLB, 2002), and the lack of funding, co-teaching is increasing nationwide (U.S. Department of Education, 2009; U.S. Department of Education, 2016). Today 63.2% of students with disabilities are instructed in the general education classroom for 80% or more of the school day. Furthermore, between 82 and 99% of secondary special education teachers are not qualified in the content areas they teach (McLeskey & Billingsley, 2008). Co-teaching, a model of inclusion where general education and special education teachers work together to instruct all students resolves many of the issues regarding compliance with federal and state laws and funding issues. Additionally, research indicates it increases academic and social achievement for both general education and special education students (Bryant-Davis, Dieker, Pearl, & Kirkpatrick, 2012; Villa, Thousand, Meyers, & Nevin, 1996).

Statement of the Problem

Due to the demands of NCLB and the reauthorization of the Every Student Succeeds Act in 2015, the change of the *least restrictive environment* (LRE) requirement in IDEIA (2004), parent advocacy, and the lack of federal funding for IDEIA, the push for full-inclusion and co-

teaching has been happening in school districts throughout the United States (Hunt & Marshall, 1999; Idol, 2006; LaNear & Frattura, 2007; Sacks & Watnick, 2006; Sindelar et al., 2006). Students with disabilities are increasing yearly nationwide (Brinkman & Twiford, 2012). Furthermore, the number of students with disabilities being served in the general education setting is increasing (Cleaveland, 2015; Idol, 2006). Additionally, Ainscow and César (2006) stated that "in recent years the appropriateness of separate systems of education has been challenged both from a human rights perspective and from the point of view of effectiveness" (p. 232).

Despite the research showing that effective inclusion results in higher academic gains and more positive social outcomes for both special and general education students, only 53.4% of students with disabilities (ages 6 to 21) in California, in 2014, were served in general education settings with their typical peers for more than 80% of their school day. The percentage nationwide was higher: 62.3% (U. S. Department of Education, 2014). California is behind the national average of 62.3% of students in the general education setting for 80% or more of the day. A large percentage (46 .6%) of special education students in the state of California still lack access to co-teaching and full inclusion with their general education peers.

Another critical factor that necessitates an increase in the practice of inclusion—specifically the co-teaching model of inclusion—is the shortage of qualified special education teachers coupled with a decade of a high attrition rate among these educators (Boe et al., 1999; Demik, D, 2008; Gehrke & Murri, 2006). IDEIA (2004) "requires that teachers of record be qualified to provide instruction in *all* content areas, adding barriers to recruiting and retaining qualified special education teachers" (as cited in Gehrke, & Murri, 2006, p. 179). This, in conjunction with the strict restrictions and training requirements imposed by NCLB, make it

extremely difficult to attract and retain qualified special education teachers (McLeskey, Tyler, & Flippen, 2004).

As reported by UNESCO (1994), "inclusive schooling is the most effective means for building solidarity between children with special needs and their peers" (p. 12). Additionally, research is suggesting that effective inclusion practices, specifically co-teaching, are beneficial for *all* students (Ainscow, 2003; Kloo & Zigmond, 2008; Weiner, 2003). Factors that are shown to determine the success and sustainability of an inclusion program are (a) leadership support, (b) school and community support, (c) the purposeful selection of students who participate, (d) teacher training, (e) planning time, and (f) teacher attitude (Idol, 2006; Kuglemass, 2006; Praisner, 2003; Sacks & Watnick, 2006). As Praisner (2003) stated, "to ensure the success of inclusion, it is important that principals exhibit behaviors that advance the integration, acceptance, and success of students with disabilities in general education classes" (p. 135).

Even with the increase of inclusion, specifically co-teaching, there is limited practitioner orientated research on co-teaching(Austin, 2001; Kloo & Zigmond, 2008; Sileo & Van Garderen, 2010). Also, there is little research on co-teaching in high performing low socioeconomic urban high schools. Most of the research in the field of co-teaching is based upon logistics instead of the perspective of the co-teacher (Kloo & Zigmond, 2008; Friend, Cook, Hurley-Chamberlain, & Shamberger, 2010). Furthermore, there needs to be more research about what works for co-teachers and what needs to improve to facilitate successful co-teaching (Friend et al., 2010; Sileo & Van Garderen, 2010).

Statement of the Purpose

There are three purposes of this case study. The first purpose of this case study is to determine what structures and programs contribute to successful co-teaching. The second

purpose is to explore the fundamental attitudes, practices, and relationships that contribute to successful co-teaching partnerships in purposefully selected high-performing urban high school setting in Southern California. The third purpose is to discover what supports, are needed to assist schools in improving their co-teaching practices. The school chosen is a California Honor Role school that scored above both district and state in English Language Arts, math, and science from the 2015-2016 school year through the 2017-2019 school year.

By learning what factors contribute to the success of a high school co-teaching model other schools, districts, and universities can utilize the knowledge to create targeted professional development, enhance teacher training programs, and replicate the successful factors in other school settings. According to Scruggs, Mastropieri, and McDuffie (2007), "Qualitative research is generally appropriate for describing and providing insights about attitudes, perceptions, interactions, classroom structure, and behaviors" (p. 394).

This study will utilize a single case study design with a mixed data collection strategies in order to address the study problem and purpose. Creswell (2009) stated that "Case studies are a strategy of inquiry in which the researcher explores in depth a program, event, activity, process, or one or more individuals" (p. 13). This case study explored the fundamental attitudes, practices, and relationships of co-teachers at a purposefully selected low socioeconomic urban high school. Additionally, it will explore what structures and programs do the co-teachers believe contribute to the success of co-teaching and what supports are needed to improve the success of co-teaching. This case study will utilize a survey, observations, and interviews of eight co-teaching teams consisting of two special education teachers and their eight general education co-teaching partners.

Research Questions

The following questions were asked at a purposefully selected high- performing urban high school in Southern California. The research explored what co-teachers reported and the researcher observed regarding:

1. What structures and programs do co-teachers believe contribute to the success of the co-teaching model?
2. What attitudes, behaviors, and relationships do co-teachers contribute to the success of the co-teaching model?
3. What supports are needed for successful co-teaching in a fully inclusive setting?

Key Terms and Operational Definitions of Variables

Academic achievement. Achievement in the public elementary academic setting, K-12, as measured by state standardized assessments, report cards, and curriculum-based measures (Giametti-May, 2009; Rea et al., 2002).

Attitudes. Teacher and administrative attitudes towards inclusion. Teacher and administrative perceptions and feelings towards the inclusion of students with disabilities in the general education classroom (Barnett & Monda-Amaya, 1998; Praisner, 2003; Villa & Thousand, 2005).

A child with a disability. The American with Disabilities Act (1990) defines a person with a disability as a person who has a physical or mental impairment that substantially limits one or more major life activity. IDEA 2004 Regulations: Part 300/A/300.8 defines a child with a disability as a child evaluated per Section 300.304 through 300.311 as having one of the 13 categories of disabilities, and who, by reason thereof, needs special education and related services. The 13 categories of disabilities under IDEA are (a) Autism, (b) Deaf-Blindness, (c)

Deafness, (d) Emotionally Disturbed, (e) Hearing Impairment, (f) Intellectually Disabled (formally known as mental retardation), (g) Multiple Disabilities, (h) Orthopedic Impairment, (i) Other Health Impairment, (j) Specific Learning Disability (SLD), (k) Speech or Language Impairment, (l) Traumatic Brain Injury, and (m) Visually Impairment including Blindness (as cited in LaNear & Frattura, 2007).

Continuum of placement. A term used in special education for the least restrictive environment (LRE) placements of a student with disabilities eligible to receive special education services. It ranges from the least restrictive being (a) general education placement with materials, supplemental aids and support such as language and speech services; (b) general education with itinerant or resource support; (c) special day program on a general education campus; (d) special education campus/special schools; (e) non -public school; (f) home; (g) hospital; and (h) residential facilities (Sec. 300.115 & Sec. 300.38 IDEIA, 2004).

Co-teaching. Co-teaching is defined as two or more licensed and credentialed teachers, where both are special and general education teachers, "providing substantive instruction to a diverse, or blended, group of students in a single physical space" (Cook & Friend, 1995, p. 2).

Every Child Succeeds Act (ESSA). The Every Child Succeeds Act, 2015, was signed into law on December 10, 2015, reauthorizing the nation's 50-year-old national education law known as the Elementary and Secondary Education Act (ESEA). ESSA replaces NCLB.

Free and appropriate public education (FAPE). Free and appropriate education is defined as the provision of regular and special education and other related services designed to meet a student's individual education needs (Education for All Children Handicap Act, Public Law 94-142) at no cost to the parents.

Highly qualified teacher (NCLB). According to NCLB (2001), a highly qualified teacher must have (a) a bachelor's degree, (b) full state licensure or certification, and (c) prove that they know the subject in which they teach (NCLB, 2002).

High performing school. A high performing school is a school that is achieving above district, and state norms as measured by state-mandated standardized testing and alternative measures (Fore, Hagen-Burke, Burke, Boon, & Smith, 2008; Giametti-May, 2009; Hagan-Burke & Burke 2008; Hartfield, 2009).

Inclusion. Inclusion usually refers to the practice of students with disabilities being educated in the general education classroom alongside their non-disabled peers for at least 80% of the time, with the appropriate supports the child needs also provided (Bateman & Bateman, 2001; Hooks & Swick, 2005; Hunt & Marshall, 1999). According to Sacks and Watnick (2006), "the intention of inclusive practice is the modification of the classroom environment so that all students receive maximum educational services" (p. 67).

Individual education plan (IEP). An IEP, according to Hunt and Marshall (1999), is the "heart of special education law" (p. 15); it is a legally binding document that outlines the goals, objectives, services, modifications, accommodations, amount of time in both special and general education, and the date services begin and their duration.

Individuals with Disabilities Act (IDEA)/Individuals with Disabilities Education Improvement Act (IDEIA, 2004). A federal law first enacted from Education for all Handicapped Act (EHA) of 1975 and changed when it was reauthorized in 1990 to the Individual with Disabilities Education Act (IDEA). In the 2004 reauthorization of IDEA, it was changed to the Individuals with Disabilities Education Improvement Act (IDEIA). IDEIA ensures that all

children age 3 - 21 with disabilities receive a free and appropriate public education (FAPE) in the least restrictive environment (LRE).

Leadership attitudes regarding inclusion. Attitude referring to leadership's attitude towards children with special needs abilities, as well as a leader's own feelings of responsibility for these students, which tend to influence their actions with students (Cooper & Tom, 1984).

Least restrictive environment (LRE). The Individuals with Disabilities Education Improvement Act (IDEIA), 2004 Sec. 300.114 LRE requirements stated:

Each public agency must ensure that:

(i) To the maximum extent appropriate, children with disabilities, including children in public or private institutions or other care facilities, are educated with children who are nondisabled; and

(ii) Special classes, separate schooling, or other removal of children with disabilities from the regular educational environment occurs only if 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.

No Child Left Behind (NCLB, 2001) Public Law 107-110. The Secondary Education Act of 1965 (ESEA) was reauthorized in 2001 to the No Child Left Behind Act (NCLB). NCLB is a federal law that authorizes federal spending on programs supporting K-12 public schools. The Act states, "To close the achievement gap with accountability, flexibility, and choice, so that no child is left behind" (NCLB, 2001, Sec. 1, Short Title). NCLB (2001) supports high standards measured by standards-based testing, measurable goals, and education reform, and has requirements for highly qualified teachers on the premise that these factors will improve achievement and close the education gap.

Professional development. Professional development in co-teaching, referring to formal education and specialized training to assist co-teachers and administrators in improving their skill, competence, effectiveness, and professional knowledge of co-teaching (Bryant-Davis et al., 2012; Burton & Pace, 2009).

Practices. Co-teaching practices, such as logistics, planning time, roles, responsibilities, administrative support and validation and resource allocation (Austin, 2001; Hang & Rabren, 2009; Keefe & Moore, 2004).

Program implementation. Program implementation regarding the implementation of co-teaching programs in K- 12 public schools. Implementation as it relates to how well the proposed programs or interventions are put into practice (Hang & Rabren, 2009; Isherwood & Barger-Anderson, 2008)

Relationships. Relationships as it relates to the general education and special education co-teaching partnership, including but not limited to, communication, respect, parity, and responsibilities (Isherwood & Barger Anderson, 2008; Keefe & Moore, 2004).

School of Choice. School of Choice, for purposes of this study, is defined as one of the 21 high schools in the large urban school district that students may apply to for their ninth-12th-grade year. Students can apply for their home school and the schools of choice. They may select up to 6 schools.

Section 504 Plan. Section 504 of the Rehabilitation Act of 1973 is a federal law enacted to protect the rights of individuals with disabilities in activities and programs that receive Federal financial assistance from the U. S. Department of Education. Students in public school are eligible for a 504 plan if the "student has an impairment which substantially limits his or her ability to learn or another major life activity and, if so, make an individualized determination of

the child's educational needs for regular or special education or related aids or services," (Rehabilitation Act of 1973, p. 2) is an education plan to enable student to access their educational programs such as transportation services, ramps, extra time on tests, seating arrangements, access to nurse, etc.

Special education student. Special education student is described under federal law in accordance with §§300.304 through 300.311 in the Individuals with Disabilities Act (IDEIA, 2004) as being a child with a disability who falls into one of the 13 categories and needs special education and related services because of the disability to access the general education curriculum (IDEIA §§300.304 through 300.311). (2; i) Subject to paragraph (a; 2; ii) of this section, if it is determined, through an appropriate evaluation under §§300.304 through 300.311, that a child has one of the disabilities identified in paragraph (a; 1) of this section, but only needs a related service and not special education, the child is not a child with a disability under this part. (ii) If, consistent with §300.39(a; 2), the related service required by the child is considered special education rather than a related service under State standards, the child would be determined to be a child with a disability under paragraph (a; 1) of this section.

Supports. Supports for successful co-teaching programs including, but not limited to, leadership support, professional development trainings, and planning time (Austin, 2001; Hang & Rabren, 2009).

Structures. Structures in place for successful co-teaching including, but not limited to, curriculum, classroom responsibilities, student groupings, reoccurring meetings, and instructional strategies.

Importance of the Study

Even though co-teaching has been used as an inclusive education practice in the United States for over 20 years and has been increasing since the enactment of the NCLB and the reauthorization of IDEIA, there is limited research on actions of co-teachers in the classroom (Kloo & Zigmund, 2008; Magiera, Smith, Zigmond, & Gerbauer, 2005). One common theme throughout the research, is the lack of teacher preparation, especially for high school teachers (Austin 2001; Keefe & Moore, 2004; Kuglemass, 2006; Sacks & Watnick, 2006). Further research is necessary for universities and school districts to acquire additional knowledge on successful co-teaching practices in high school settings: to gain insights on how these teachers were prepared, what professional development and/or supports assisted in their success, and the factors that contribute to their success (Friend, et al., 2010; Keefe & Moore, 2004). Furthermore, there is limited research on co-teachers perspectives on co-teaching (Friend et al., 2010; Keefe & Moore, 2004; Sileo & Van Garderen, 2010). This study will utilize a single case study design. Creswell (2009) stated, "Case studies are a strategy of inquiry in which the researcher explores in depth a program, activity, process, of one or more individuals" (p. 13).

Additionally, in their metasynthesis of qualitative research, Scruggs, et al. (2007) called for future research on individual schools and how they develop genuine collaborative partnerships and how these practices correlate to specific gains. Research indicates that one of the main challenges in co-teaching is when the special educator is in a subordinate role in the classroom; research on co-teachers who are true collaborative partners utilizing inclusive instructional practices based on their professional expertise will benefit co-teaching practices and assist in overcoming this challenge (Deiker, 2001; Keefe & Moore, 2004). Currently, there is a shortage of research on co-teaching in high- performing schools (Hagen-Burke & Burke, 2008;

Sacks & Watnick, 2006). In this era of high accountability, research into successful co-teaching is imperative.

The data from this study can be used by universities, teacher training programs, school districts, and co-teachers to develop their practice further. Universities and school districts can utilize the research to provide targeted instruction and professional development to new teachers, ongoing teacher training, paraprofessional training, and supporting staff members. Additionally, this research will add to the body of research on co-teaching.

Historically, students with disabilities have been underserved and marginalized (Ainscow, 2000; Glancy et al., 1998; Kozol, 2005; Kugelmass, 2006; Martin, 1997). Even though there are now laws in place stating that they are to be educated to the maximum extent possible alongside their same-age peers this is not happening for 37.4% of the students with disabilities (U.S. Department of Education, 2016; IDEA 2004). Inclusive education means that all students in a school, regardless of their strengths or weaknesses in any area, are educated together, receive maximum educational services, and all are integral contributing members of the school community (Sacks & Watnick, 2006). Inclusive education is now policy that is being pushed into schools across the nation. Research over the past 20 years indicates that teachers' and administrators' attitudes, actions, planning time, professional development, and administrative support are the most critical predictors for successful inclusion programs (Kuglemass, 2006; Praisner, 2003; Sacks & Watnick, 2006; Weiner, 2003).

According to the U.S. Department of Education (2007), the inclusion of students with disabilities into the general education classroom is ever increasing. Recent research suggests that inclusion enhances the academic and social achievement of all students. The NCLBA's goal was that 100% of students will achieve proficiency in reading and math by the year 2014 (Allen,

Glassman, Riegel, & Dawson, 2013). Schools that did not make *adequate yearly progress* (AYP) and were required to offer school choice to parents, provide supplemental services, develop school improvement plans, some schools were/are being reconstituted and some were taken over by the state (Gorden, 2006).

Recently, under ESEA states can obtain an ESEA waiver against the penalties and requirements of NCLB, in return for a state-developed comprehensive and rigorous plan for educational improvement (U.S. Department of Education, 2013). Plans must show how each state plans to improve the quality of instruction and educational outcomes for *all* students, close the achievement gaps, and increase educational equity. As of May 2013, 34 states have obtained waivers (U.S. Department of Education, 2013). On August 6, 2013, eight school districts in California: Los Angeles, Fresno, Long Beach, Oakland, Sacramento, San Francisco, Sanger, and Santa Ana formed a partnership and obtained a waiver.

Additionally, NCLB requires all teachers to be highly qualified and credentialed in the areas of instruction. In secondary classrooms, this is a dilemma due to the necessary level of competency in content areas. According to the NCLB requirements, high school special educators would need to obtain a secondary credential(s) in content areas for them to be considered highly qualified. As it stands, there is already a nationwide shortage of special education teachers and content area teachers in math and English.

To meet the requirements, co-teaching is quickly expanding across the nation. In a co-teaching model, the general educator is the content expert specializing in structuring, understanding, and pacing the curriculum for students, and the special educator specializes in identifying the unique learning needs of students and differentiating the instruction and curriculum to meet students' individual needs.

In 2015, when ESEA came under review and was reauthorized to Every Student Succeeds Act (ESSA, 2015), the NCLB requirements for highly qualified teachers became less stringent. Schools no longer need to send letters to parents if their child's teacher is not credentialed in the area they are instructing. Schools do, however, still need to provide parents with their child's teacher or paraprofessional professional background and credentials if they inquire. Special educators are still held to a higher standard. They must hold a bachelor's degree and be credentialed in special education by the state in which they are teaching.

Successful inclusion of students with disabilities in general education has been a major problem in the United States (Lipsky & Gartner, 1996; Villa & Thousand, 2005). Education for students with disabilities was not a requirement under the law until 1970 with the enactment of Education for the Handicapped Act, P.L. 91-230 (EHA, 1970). Before 1971, over a million children with disabilities were not allowed in public schools. For the past 46 years parents of students with disabilities and advocates have been pushing for an increase in inclusion practices. With the passage of NCLB (2001), recently reauthorized as ESSA and the highly qualified teacher requirement, inclusion, specifically co-teaching, has been ever increasing. For inclusion to be successful, it is necessary that school site administrators embrace inclusive practices and provide necessary support to staff (Allen et al., 2006; Praisner, 2003; Villa & Thousand, 2005). The principal's attitude is pivotal in the implementation of change at a school site. School site administrators, general education, and special education teachers need to be trained willing participants with positive attitude towards inclusion (Austin, 2001; Praisner, 2003; Villa & Thousand, 2005).

Additionally, studies have shown that common planning time, content knowledge especially in secondary schools, administrative support, parity amongst co-teachers, smaller class

size, needed supports and materials, and training are critical factors in successful co-teaching partnerships (Bryant-Davis et al., 2012; Hang & Rabren, 2009; Magieria et al., 2005). Throughout all the research on inclusion and co-teaching for the past 40 years, the most critical factor was training of staff, especially co-teaching partners (Giametti-May, 2009; Keefe & Moore, 2004; Wang & Baker, 1985).

Key Assumptions

As an administrator for 6 years, with over 25 years of experience in the classroom both in general and special education K-12 and university, I brought certain assumptions to the study. There are seven fundamental assumptions guiding the methodology and structure of this study:

1. The first assumption is that all educators aspire to have all their students learn to the best of their abilities;
2. The second is that all teachers believe in rigor, high expectations, and quality education for all. Furthermore, all co-teachers work together to differentiate instruction for students' differing abilities and providing necessary accommodations enabling all students to access a rigorous high-quality research-based curriculum;
3. Third, educators continually learn and seek knowledge to improve their practice. Through professional development opportunities, study, or required training, teachers seek to strengthen their skills, practices, and pedagogy;
4. The fourth assumption is that educators with various levels of experience, educational preparation, and differing backgrounds, and belief systems, will respect and value each other as professionals. It is further assumed that the co-teachers work together in the best interest of students and that general education and special education teachers value each other's contributions. It is assumed that general education and

special education teachers will view one another as equals, although the general education teacher may be viewed as the content expert and the special education as the expert in differentiation and providing accommodations. It is assumed that co-teaching partners treat each other professionally, are friendly towards each other, and will support each other so that all students can succeed;

5. The fifth assumption is that all participants will answer survey and interview questions honestly and without bias;
6. A sixth assumption is that all participants understand the term and concepts of co-teaching and inclusion; and
7. The seventh and final assumption is that I will conduct research and analyze data without bias.

Limitations of the Study

The size and nature of the study sample is a limitation of the study that would restrict any generalizing of study findings. For more generalizable results, the study would need to include a larger and more heterogeneous sample representing highs schools within and outside of California; high schools of all sizes; private, independent, and charter schools; and more stratified socioeconomic backgrounds.

The population of students with IEPs at the school site is only 6%; however, 4% of the students have 504 plans, for a total of 11% of the student population requiring accommodations and extra assistance with instruction. Most school sites in the large urban districts in California have an average of 10% to 11% of students with disabilities.

Additionally, willingness to co-teach as part of the hiring process when the school first opened in 2014. Many co-teaching administrators cannot plan a program and carefully select teachers in the hiring process.

Delimitations of the Study

This study is delimited to one medium-sized public, non-charter, high performing school of choice high school in one of the largest urban school districts in Southern California. There will be ten participants in the study, two special education co-teachers and their eight general education co-teaching partners. For more generalizable results, the study would need to include a larger and more heterogeneous sample representing high schools within and outside of California; high schools of all sizes; charter, private, and independent schools, and more stratified socioeconomic backgrounds.

Organization of Study

The study will include five chapters. Chapter 1 is an introduction to the study. Chapter 2 is a review of literature. Chapter 3 concerns the methodology of the study. Chapter 4 is the results, and Chapter 5 encompasses the findings. The introduction includes the history of special education from before the enactment of special education law when over a million students were excluded from public education to today where there is a push for full inclusion of students with disabilities, which has led to the rise in co-teaching throughout the United States. Additionally, the statement of the problem is analyzed providing the context to understand the problem and outlining the importance of the case study. The statement of purpose is discussed, research questions are delineated, and key terms are defined. Chapter 1 concludes with the importance of the study, assumptions, delimitations, and limitations of the study. Chapter 2 is the literature review and consists of research on the history of special education concentrating on inclusion,

attitudes towards inclusion, academic achievement and inclusion, professional development, and concluding with the implementation of the co-teaching model.

Chapter 3 explains the research design and methodology that will be used in the study. The chapter restates the purpose of the study and research questions. The research design and the rationale for the design are discussed. The sampling method, setting, and plans for the treatment of human subjects are outlined in detail. Confidentiality is considered along with the delineation of the data collection methods. In conclusion, instrumentation and data analysis and interpretation are discussed.

Chapter 4 discusses the analysis and results of the study in regards to the three stated research questions. Chapter 5 is a summary of the study, discussion of the findings, implications for practice, and recommendations for further research.

Chapter 2: Literature Review

Due to the demands of NCLB, ESSA, the change of LRE requirements in IDEIA, and the lack of funding for IDEIA, full-inclusion: specifically, co-teaching has been increasing throughout school districts in the United States (Sindelar, Shearer, Yendol-Hoppey & Leibert, 2006). The era of accountability in education took hold with the reauthorization of IDEIA (2004), NCLB (2002), and ESSA, 2015. Currently, in the state of California, all school performance levels are readily accessible via the state's website. School performance levels are a factor in home values and school choice. School performance levels have even driven parents to push for schools to be taken over by other entities or shut down (Wong & Shen, 2002). Even though research has shown that co-teaching is an effective practice for increasing student achievement, currently, there is a dearth of research on co-teaching practices in high-performing schools (LaNear & Frattura, 2007; Sacks & Watnick, 2006).

Inclusion practices, specifically co-teaching, have shown to have effective results in academics and social outcomes for both special education and general education students (Giametti-May, 2009; Hartfield, 2009). California, however, is behind the national norm of public education that involves an inclusion setting (U.S. Department of Education, 2014). Research has shown that the most critical factors in the success of co-teaching are relationships, attitudes, practices, and quality professional development. Sustained collaborative, job-embedded, data-driven, classroom-focused professional development has shown to have the largest effect on successful co-teaching partnerships and is a factor of ESSA (ESSA, 2015; Friend et al. 2010; Villa & Thousand, 2014).

Over the past four decades, a philosophical, theoretical, and ideological debate regarding inclusion has ensued among the disability community and the community at large (Fuchs &

Fuchs, 1998; Fuchs, Fuchs, & Stecker, 2010; Lipsky & Gartner, 1996; Pfeiffer & Reddy, 1999; Stainback & Stainback, 1987). This literature review provides an overview of the historical, theoretical, and empirical research behind inclusion, attitudes toward inclusion, the academic achievement of students educated in inclusive settings, implementation of co-teaching, relationships and practices of effective co-teaching, research on professional development for co-teaching, and the implications and practice of co-teaching. As Weiner (2003) noted, "underlying attitudes and beliefs can create conditions that either put students at risk of failing or help them learn well" (p. 13). In this era of accountability, school administrators are held accountable for the academic achievement of all students (Cox, 2008; Gordon, 2006; Hartfield, 2009; Praisner, 2003). School leaders and educators play a vital role in the success of inclusion, and their perceptions and attitudes influence their school's climate (Butler-Hayes, 1995; Carpenter & Dyal, 2007; Cox, 2008; Cruzeiro & Morgan, 2006; Praisner, 2003).

Acknowledging the need for a commonly held meaning of the term inclusion, The National Center on Educational Restructuring and Inclusion (1995) created a working definition of inclusion:

> Inclusion is the provision of services to students with disabilities, including those with severe impairments, in the neighborhood school, in age-appropriate general education classes, with the necessary support services and supplementary aids (for the child and the teacher) both to assure the child's success – academic, behavioral and social – and to prepare the child to participate as a full and contributing member of the society. (p. 3)

The two main philosophical theories behind inclusion are (a) equity for all and (b) social and academic gains for students with disabilities (Fuchs & Fuchs, 1994; Gordon, 2006; Lipsky & Gartner, 1987, 1996; Pfeiffer & Reddy, 1999; Stainback & Stainback, 1992; Villa & Thousand,

2005). Dorothy Kerzner Lipsky, the director of the National Center on Educational Restructuring and Inclusion for City University of New York's Graduate School and University Center, and her research partner Alan Gartner (also of City University of New York) view full inclusion and inclusive education as a moral imperative in American education and society (Lipsky & Gartner, 1996). Full inclusionists argue that inclusion and inclusive education occur when all children are educated in the general education classroom, no matter the severity of their disability, for 100% of the school day with necessary supports (Gartner & Lipsky, 1989; Idol, 1997; Stainback & Stainback, 1992). More specifically, they regard inclusion as a matter of equity and social justice and believe the American educational system needs to be transformed into one of inclusive education for all (Gartner & Lipsky, 1989; Lipsky & Gartner, 1996).

Richard A. Villa, president of Bayridge Consortium and author of over 100 articles and books pertaining to inclusion and Jacqueline Thousand, professor in the College of Education at California State University San Marcos explained that inclusion "assumes that living and learning together benefits everyone, not just children labeled as having a difference; that every child (each citizen in a democracy) has the inalienable right to belong" (Villa & Thousand, 2005, p. 5).

As Sacks and Watnick (2006) noted, "the intention of inclusive practice is the modification of the classroom environment so that all students receive maximum educational services" (p. 67). UNESCO (1994) reported that "inclusive schooling is the most effective means for building solidarity between children with special needs and their peers" (p. 12). Furthering that notion, many full inclusion proponents believe that students with exceptional needs will perform better academically and socially if educated alongside their non-disabled peers (Fuchs & Fuchs, 1998; Gordon, 2006; Lipsky & Gartner, 1996). For example, Mitchum (2005), Sacks and

Watnick (2006), and Schumm and Vaughn (1995) believe inclusion provides special education students with positive peer role models for social skills, appropriate behavior, and language. That being said, research has shown that successfully implemented inclusion programs give special need students access to grade-level curricula, increase their self-esteem and personal competence, provide a more natural social interaction with their typically developing peers, and have shown to increase achievement for both special education and general education students (Ainscow & César, 2006; Hooks & Swick, 2005; Idol, 2006; Sack & Watnick, 2006; Weiner, 2003).

Historically, the rights of children with disabilities have been played out in the courts (Faircloth, 2004; Gordon, 2006; Hunt & Marshall, 1999; LaNear & Frattura, 2007; Pfieffer & Reddy, 1999). Legislation and judicial interpretations that at one time excluded children with disabilities have transformed to ones of inclusion and integration into the general education setting (Gordon, 2006; Kubicek, 1994; LaNear & Frattura, 2007; Lipsky & Gartner, 1996). To fully understand the four decades of debate over inclusion it is necessary to be familiar with the history of special education. LaNear and Frattura (2007) opined, "Deeper investigation into each of these enactments and judicial opinions can help to enhance our understanding of the variety of truths experienced by students with disabilities, as well as their parents, teachers, and advocates" (p. 105).

This literature review begins with the history of inclusion in the United States from the major court cases through the enactment of legislation for students with disabilities and the push for inclusion. This review of literature is organized into nine sections: (a) history of inclusion in special education, (b) inclusion debate, (c) attitudes towards inclusion,(d) inclusion model and student achievement, (e) inclusion model of co-teaching, (f) benefits of co-teaching,

(g) challenges of co-teaching, (h) professional development, and (i) co-teaching in the era of accountability.

History of Inclusion in Special Education

> Binghampton University scholar Kuglemass (2006) noted that,
>
> just as the Brown vs. Board of Education has not ended segregated schooling, thirty years of federal legislation calling for the education of all children in the "least restrictive environment" has similarly not ended the practice of separating students with disabilities from their typical peers in school. (p. 280)

According to the *28th Annual Report to Congress of the Implementation of the Individuals with Disabilities Act*, Parts B and C (U. S. Department of Education, 2009), in 2004 only 52% of the students with disabilities (ages 6-21), were being served for 79% or more of the day in the general education environment. In 2014, the percentage increased to 62.6% (U. S. Department of Education, 2016). In 2004, 26% of the students with disabilities were in general education for 40% to79% of the school day; in 2014, this percentage decreased to 18.6%. Likewise, the percentage for students educated for 40% or less of the day in the general education setting decreased from 18% in 2004 to 13.5% in 2014. Conversely, the percentage of students with disabilities being served in separate special education facilities for 100% of the day increased from 2004 to 2014 from 4% to 5.3% (U.S. Department of Education, 2016).

Court cases. Court decisions beginning with *Brown vs. Board of Education* in 1954 to the most current groundbreaking decision in *Endrew F. v. Douglas County School District* (2017) are the backbone of special education law. Court decisions have paved the way for the passage of legislation protecting the rights of children of disabilities to a free and appropriate public education.

Brown vs. Board of Education. In the landmark Supreme Court case, *Brown vs. Board of Education* (1954), a precedent was set for future right to education cases on behalf of students with disabilities. In this case, Chief Justice Warren, writing for the majority, distinguished education as the most important purpose of the United States government. Stating that education was essential for citizens to exercise their most basic civic responsibilities, Warren wrote:

> In these days it is doubtful that any child may reasonably be expected to succeed in life if he is denied the opportunity of an education. Such an opportunity, where the State has undertaken to provide it, is a right that must be made available to all on equal terms. (*Brown* v. Board of Education*,* 1954, p. 493)

Approximately 20 years later, in 1971, the first court case specifically concerning the rights of children with disabilities to receive a free and appropriate education (FAPE) in the regular education setting was tested in the courts. The Consent Agreement for *PARC* v. Commonwealth of Pennsylvania (1972) was groundbreaking legislation for the rights of children with disabilities to receive an education and be included in the regular education classroom (Gordon, 2006; LaNear & Frattura, 2007; Lipsky & Gartner, 1996).

PARC v. Commonwealth of Pennsylvania (1972). In 1971, a group of parents represented under the Pennsylvania Association for Mentally Retarded Children (PARC) filed a class-action suit against the Commonwealth of Pennsylvania on behalf of mentally disabled children who had been denied access to a free appropriate public education. PARC claimed that the mentally disabled children were being denied their fourteenth amendment rights of equal protection. On October 7, 1971, PARC and the Commonwealth of Pennsylvania came to an amicable Consent Agreement. The Consent Agreement, Section II, number 4 stated, "all mentally retarded persons are capable of benefiting from a program of education and training" (1972, p.11).

Additionally, it stated that the Commonwealth of Pennsylvania will provide a "free and appropriate public education" (FAPE) for all children ages 6 to 21 and "more specifically to include all of its exceptional children" (*Pennsylvania Association for Mentally Retarded Children v. Commonwealth of Pennsylvania,* 1972, section II, 4).

Furthermore, Section II, Number 8 is the first court case paving the way for inclusion. Number 8 stated:

> placement in a regular public school class is preferable to placement in a special public school class and placement in a special public school class is preferable to placement in any other type of program of education and training (*Pennsylvania Association for Mentally Retarded Children, v Commonwealth of Pennsylvania,* 1971).

Mills v Board of Education, 1972. FAPE was again tested in the case of *Mills v. Board of Education* (1972). In 1972, a civil action was filed against the District of Columbia's Board of Education on the behalf of seven school-age children with varying disabilities including mental retardation, physical impairments, and behavioral disturbances. They claimed that they were being denied their access to free and appropriate education (FAPE) without proper due process. The Board stated that the children were uneducable in a public school due to their mental illness and mental retardation. The Board denied them access to public schools and refused to pay for their education because it was too expensive. Meanwhile, the children stayed at home without access to education. The Court ruled in favor of the plaintiff stating that education must be provided, regardless of the cost to the school board, thus reiterating a child's right to free and appropriate education (FAPE).

The rulings in the PARC and Mills cases were pivotal in the rights to an education for children with disabilities. They paved the way for future legislation and increased awareness of

education for *all* children, no matter their disability. Subsequently, in 1974, Congress amended existing laws to contain "the goal of full educational opportunity for students with disabilities" (Katsiyannis, Yell, & Bradley, 2001, p. 325).

Timothy v. Rochester School, 1989. In 1989, the zero-rejection policy of the denial of a FAPE was instituted. Timothy W. was a boy with multiple handicaps and severe profound mental retardation due to medical complications starting at birth (*Timothy v. Rochester School*, 1989). Rochester Northern Illinois School District had provided him with services; however, the district had denied him educational services once he reached school age. In 1988, Rochester School District alleged that Timothy W. was so severely and profoundly handicapped that he could not benefit from education, and the district court agreed. In 1989, the United States Court of Appeals reversed the lower court's decision that denied Timothy W. an education stating the Education for All Handicapped Children Act (EAHCA, 1975) meant all children. Justice Bownes further reiterated that the language of the Act is unequivocal:

> The language of the Act in its entirety makes clear that a "zero-reject" policy is at the core of the Act, and that no child, regardless of the severity of his or her handicap, is to ever again be subjected to the deplorable state of affairs which existed at the time of the Act's passage, in which millions of handicapped children received inadequate education or none at all. In summary, the Act mandates an appropriate public education for *all* handicapped children, regardless of the level of achievement that such children might attain (*Timothy v Rochester School*, 1989, p. 961).

Daniel R.R. v. State Board of Education, 1989. The Daniel R. R. v. State Board of Education case (1989) reinforced the continuum of services, and set a two-pronged test to determine if the District complied with EHA:

1. Can education in the regular classroom with the use of supplemental aids and services be achieved satisfactorily?
2. If it cannot, has the school mainstreamed the child to the maximum extent appropriate? (p. 1048)

Daniel R. R. was a 6-year-old boy with Down Syndrome who was mentally retarded with a speech impairment and functioned on a 2-3-year old level. In pre-kindergarten, Daniel began attending half day in the regular education class and half-day in a special education program. Soon into the school year, the teacher began having great difficulty with Daniel in the classroom. He needed constant one-on-one attention from the aide or teacher to participate. Even with modification of the pre-kindergarten curriculum beyond recognition, Daniel failed to master any of the pre-kindergarten skills. Therefore, the Accelerated Rehabilitation Disposition (ARD) team reconvened and changed Daniel's placement to a special education classroom with mainstreaming for lunch and recess.

Daniel's parents felt that Daniel was being denied his right to LRE. The hearing officer found that Daniel was highly disruptive in class, taking an exorbitant amount of the teacher's attention and time away from the other students. Additionally, it was found that it was necessary for the teacher to modify the curriculum by 90 to 100 % for Daniel to master it. Senior Circuit Judge Swygert in the writing of the majority opinion stated, "while (P.L. 94-142) does indeed mandate as much mainstreaming as possible, it does not compel the state to establish entire new levels of public education services to satisfy this requirement" (p. 54). Furthermore, in D*aniel R. R. v. State Board of Education* (1989), the court stated that general education teachers are not required to "devote all or most of their time to one handicapped child, or to modify education programs beyond recognition" (p. 1048).

Legislation. Throughout history, laws have been enacted to protect the rights of people with disabilities. Before the IDEA, the civil rights law that prohibits discrimination based on a disability, Section 504 of the Rehabilitation Act of 1973 protected people with disabilities and still protects student with disabilities who may not qualify for special education.

The Education for All Handicapped Children Act (EAHCA), 1975 (P.L. 94-142). EAHCA, passed in 1975, was groundbreaking legislation requiring all public schools that accept federal funds to provide equal access to education and one free meal a day for children with disabilities. EAHCA calls for the least restrictive environment (LRE), meaning students with disabilities are to be educated to the maximum extent appropriate with children without disabilities (Education for All Handicapped Children Act, 1975). The law stated:

> To the maximum extent appropriate, handicapped children, including those children in public and private institutions or other care facilities, are educated with children who are not handicapped, and that special classes, separate schooling, or other removal of handicapped children from the regular educational environment occurs only when the nature or severity of the handicap is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily. (P.L. 94-142 § 1412[5][B])

The service delivery for students with disabilities varies depending on the student's needs and the recommendations of the IEP team. The service delivery for students who qualify for special education services follows a continuum of services but must follow the LRE guidelines (Fuchs & Fuchs, 1998). Students with disabilities are to be placed in the setting that is the least removed from the general education setting, and that will provide the most appropriate education for the student. Various service delivery models are available for students with disabilities in the

general education setting. The least restrictive is full inclusion, with services being brought to the student in the classroom. Services are delivered in a variety of formats such as (a) resource specialist teacher; (b) a teaching assistant; (c) daily, weekly, or monthly consultation with a service provider; (d) co-teaching or a specialist working inside the classroom to provide services (Hunt & Marshall, 1999; Rea et al., 2002).

The next least restrictive model is the *pull-out model,* with services being delivered for a small portion of the day in a resource room. The third least restrictive environment is a self-contained special day classroom on a general education campus with special education students spending part of their day mainstreaming with their typical peers. The most far removed from the general education setting on the continuum is placement in a separate school to address the needs of students with profound or severe disabilities. This is a rare occurrence and only used if the child's needs are so severe they cannot be handled in another environment. Many times the placement is temporary, such as a school in a psychiatric hospital. Other students may be placed in non-public schools, long term residential programs, or private schools, if the school district cannot provide an appropriate education for them (Fuchs & Fuchs, 1998; Hunt & Marshall, 1999).

Regular Education Initiative (REI). In November 1986, Madeline Will, the Assistant Secretary of the Office of Special Education and Rehabilitative Services (OSERS) for the U. S. Department of Education, recommended a delivery approach titled the Regular Education Initiative (REI), which "unleashed what can be described as a firestorm within the education field" (Kubicek, 1994, p. 28). In her report to the Secretary of Education on the status of the nation's programs for helping students with learning problems, Will (1986) called for reorganizing special education with a major emphasis on the regular classroom:

> The heart of this commitment is the search for ways to serve as many of these children as possible in the regular classroom by encouraging special education and other special programs to form a partnership with regular education. (p. 20)

Will's report (1986) commented on the deficiencies of the "pull-out programs" constituting a divide, a "dual system" of educating children (p. 8). Furthermore, the report called for the training of teachers and administrators "to develop and manage innovative programs" and partnerships between special and regular education "to support regular education in educating children with learning problems" (Will, 1986, p. 20). Will called for a transformation of the current dual system of special education and encouraged an inclusive system of education. In the conclusion of her report, Will stated, "we need to visualize a system that will bring the program to the child rather than one that brings the child to the program" (p. 23).

The REI, however, did not give a detailed blueprint to transform the delivery system; it was primarily a response to the issues that existed in special education (Jenkins, Pious, & Peterson, 1988; Kauffman, 1989; Kubicek, 1994). Those who argued against REI and many researchers stated REI is "primarily a political strategy, not a reform movement based on rigorous policy analysis, reliable empirical data, or careful logical analysis" (Kauffmen, Braaten, Nelson, & Polsgrove, 1990, p. 3). The definitions for what REI is and what it entails are numerous and are the impetus behind the inclusion debate (Fuchs & Fuchs, 1991; Kubicek, 1994).

Individuals with Disabilities Education Act (IDEA). In 1990, EHA was reauthorized and changed to the Individuals with Disabilities Act (IDEA). Amendments were made in IDEA (1990), extending LRE to not only that children are to be educated to the *maximum extent appropriate* with general education peers, but additionally, they are to be educated in the same

classroom that they would be in if they were non-disabled. IDEA (1997) amended and expanded LRE adding that all students would have "access to the general curriculum" (as cited in Glancy et al., 1998; Hunt & Marshall, 1999; Liebert et al., 2006).

The most critical change in LRE and the main cause behind the recent push for inclusion and the inclusion model of co-teaching happened with the reauthorization of IDEA in 2004. Congress reauthorized IDEA in 2004 through the Individuals with Disabilities Improvement Act (IDEIA, 2004). IDEIA (2004), Sec. 300.114 stated:

> i. To the maximum extent appropriate, children with disabilities, including children in public or private institutions or other care facilities, are educated with children who are nondisabled; and
>
> ii. Special classes, separate schooling, or other removal of children with disabilities from the regular educational environment occurs only if 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.

In addition, IDEIA (2004) called for student's IEP goals to be aligned with each state's description of adequate yearly progress (AYP) according to the No Child Left Behind Act (NCLB, 2001). NCLB holds schools accountable for all students, including those with disabilities, and requires that all students meet AYP goals. This has further fueled inclusion practices, specifically co-teaching and the integration of general and special education students.

Inclusion Debate

Kavale and Forness (2000) noted, "Inclusion appears to have created an ideological divide in special education" (p. 279). The inclusion debate began back in 1971 with *PARC v. Pennsylvania* and is still currently under contention. According to Fuchs and Fuchs (1995,

1998), there are two types of inclusionists: full inclusionists and inclusionists. Full inclusionists argue that all students with disabilities should be included full time in the general education classroom no matter the severity of the disability or the needs of the student for 100% of the school day (Lipsky & Gartner 1987; Stainback & Stainback, 1992). By contrast, inclusionists believe that students with disabilities should be educated on a continuum of service placements to achieve their maximum potential (Fuchs & Fuchs, 1998; Fuchs et al., 2010). Villa and Thousand (2005) stated that "inclusive education commits to *every* [emphasis added] child and that child's differing needs; thus, a constellation of services be taken to the child rather than the child being taken to the services" (p. 171).

According to Fuchs and Fuchs (1998), full inclusionist parents are willing to make the sacrifice of trading off their child's academic skills in favor of gaining social skills and improving others' attitudes. Conversely, inclusionists are predominantly vested in the academic progress of children (Fuchs & Fuchs, 1998). Most parents who push for full inclusion are parents of severely mentally disabled children; these are only about 1/10th of the population of students with disabilities. In contrast, almost all other disability advocacy groups such as the Council for Children with Behavior Disorders, the Learning Disabilities Association, American Council of the Blind, Commission on the Education of the Deaf, and the Council for Exceptional Children renounce full inclusion and have made strong public announcements in favor of a continuum of placement options (Fuchs & Fuchs, 1995).

Inclusionists believe in inclusion for students when students and staff are ready and able. They believe that the key to successful implementation is realistic expectations, training, and expertise of staff, positive attitudes of all parties involved, and with necessary supports in place; by contrast, some full inclusionists want to abolish special education altogether (Ainscow &

César, 2006; Fuchs & Fuchs 2006; Fuchs et al., 2010; Gordon, 2006; Pfeiffer & Reddy, 1999). Moreover, some full inclusionists believe if full inclusion were to be mandated, then all schools would be forced to "create and provide whatever necessary to ensure that all students have access to meaningful learning" (Villa & Thousand, 2005, p. 3).

Full inclusionists. There are three main groups of full inclusionists: (a) a group that advocates for full dismantling of special education, (b) a group of fiscal conservatives and policymakers that see full inclusion as a cost-saving measure, and (c) a group that calls for full inclusion with the necessary supports and services brought to the general education classroom (Fuchs & Fuchs 1998; Pfieffer & Reddy, 1999; Villa & Thousand, 2005). The first group of full inclusionists believes, "the touchstone concept is that general education is expandable; special education—in lesser or greater degrees—is expendable" (Fuchs & Fuchs, 2006, p. 308). These full inclusionists want to get rid of special education altogether. They argue for the full dismantlement of special education, thus eliminating the need for special education teachers, special placements, related services, and the process of qualifying students for special education (Fuchs & Fuchs, 1995; Stainback & Stanback, 1992). They want all students grouped in the regular classroom with no special services. One contention of the full inclusionists is that special education is a crutch to general education because general educators use special education as a dumping ground (Pfieffer & Reddy, 1999; Stainback & Stainback, 1992). They theorize that getting rid of special education will force schools and school districts to undertake the hard work necessary to transform their educational practices to serve all children in an inclusive setting (Fuchs et al., 2010; Lipsky & Garnter, 1987; Pfeiffer & Reddy, 1999; Stainback & Stainback, 1992). Essentially, "they assert that elimination of a separate system of special education would

cause general education to become a more responsive, innovative, and humane system" (Braaten & Gable, 1995, p. 4).

One of the most influential advocacy groups for full inclusion is mainly made up of parents of children with severe intellectual disabilities, who feel that the primary responsibility of an educator is to nourish friendships between students with disabilities and their non-disabled peers (Fuchs & Fuchs, 1998). They feel that, for children with severe disabilities to be productive members of society, they must learn the necessary social and functional skills in a mainstream environment. They believe that to meet these objectives it is imperative that children with severe disabilities interact with their age-appropriate non-disabled peers regularly in a general education classroom. These parents, along with other parents of students with severe disabilities, argue for full inclusion with necessary supports (Fuchs & Fuchs, 1998; Zhang, 2001). They are highly influential advocates for children with severe disabilities, rejecting the notion of LRE and calling for full inclusion in the regular education classroom for 100% of the time. These proponents of full inclusion reject special education placement, arguing that historically it has been regarded by students, teachers, administrators, and the community as the place for the undesirables and unteachables (Fuchs & Fuchs, 1995; Pfeiffer & Reddy, 1999). Another point, full inclusionists make is, since the passage of P.L. 94-142, students with intellectual disabilities and other more severe disabilities are still being denied access to the general education classroom (Fuchs & Fuchs 1998; Stainback & Stainback, 1987).

In 1995, Justine Maloney, the legislative chairman of the Learning Disabilities Association of America stated that for 15 years of the passage of P.L. 94-142, many students with disabilities, especially those with severe disabilities were still being denied access to the general education classroom (Maloney, 1994). She reported that only 30% of students with

intellectual disabilities and 24% with multiple disabilities received their education in a resource room or general education classroom; however, 76% percent of students with learning disabilities received their education in those placements (Maloney, 1994).

The second group of full inclusionists is comprised of fiscal conservatives, including administrators and politicians, who argue for full inclusion as a cost-saving measure. They push for students to be placed in full inclusion without necessary supports (Fuchs & Fuchs, 1998). They perceive inclusion as an avenue to cut special education costs (Pfeiffer & Reddy, 1999).

Special education costs are increasingly encroaching upon the general education budget. In the 2016-2017 school year, the Los Angeles Unified School District (LAUSD), the nation's second-largest school district, special education costs were $1,549.2 billion. Federal and state revenues for special education were $114.1 million and $338.6 million, respectively. Nine hundred and seventeen ($917) million dollars were appropriated from general education funds to compensate for the difference in special education costs for the 2016-2017 fiscal year.

Full inclusionists argued that costs in general education are far less than special classrooms or special schools (Fuchs et al., 2010; Pfieffer & Reddy, 1999). In the 2014-2015 school year, the average cost per student in the general education classroom with resource specialist support was an additional $5,417 versus up to an additional $25,245 per student in a moderate to severe special day program at a comprehensive public school campus. Average yearly costs for a student with disabilities increase with more restrictive settings. For example, the average yearly cost for a student in a nonpublic school setting is $29,441, a special education center: $40,048, and the most restrictive setting a residential treatment center: $114,611. Conversely, the average cost of *behavior intervention implementation* (BII) service or a one-to-

one assistant was $45,077, which dramatically increases the cost of a student in the general education setting or in a special day program, and can be considered to be more restrictive.

The third group of full inclusionists argued that special education should provide all services to both general education students and students with disabilities in the regular education classroom (Fuchs et al., 2010; Giangreco, Dennis, Cloninger, Edelman, & Schattman,1993; Lipsky & Garnter, 1991; Stainback & Stainback, 1985). In 1979, The Association for Persons with Severe Handicaps (TASH) adopted a resolution calling for all students with severe disabilities to be integrated and educated in the general education classroom alongside their non-disabled peers (Stainback & Stainback, 1992).

The main theory shared by many full inclusionists is that full inclusion provides three important benefits for non-disabled children and children with mild/moderate disabilities: "education of future service providers, education of future parents, and development of perspective" (Stainback & Stainback, 1987, p. 9). They believe that the best way for future nurses, therapists, doctors, special educators, and other service providers to gain the skills and attitudes to be effective practitioners for people with special needs is to grow up and be educated alongside them. Moreover, Stainback and Stainback (1987) explained that since most children with intellectual disabilities are educated separately, many parents of children with severe intellectual disabilities grew up never having seen a child with severe intellectual disabilities. These full inclusionists believe that growing up and being educated alongside their severely disabled peers will give future parents better knowledge, experience, and to be better prepared, to be a parent of a child with severe disabilities (Stainback & Stainback, 1992). Finally, full inclusionists feel that non-disabled peers will gain valuable personal perspective, emotional, and social skills by being educated alongside their disabled peers (Stainback & Stainback, 1987).

Stainback and Stainback (1987) reiterated that "only through individually meaningful, comprehensive, and longitudinal exposure and experience can we realize how important it is to learn to live, work, and play together and affirm and enjoy the beauties and inherent value of individual differences" (p. 10).

According to Fuchs and Fuchs (1998), inclusionists believe it is the responsibility of special education and general education educators to work together in helping students with disabilities gain knowledge, self-control, and important skills that will facilitate graduation from high school, college and/or help them attain a career and be a successful citizen. Inclusionists believe that there must be a continuum of services for students with disabilities to be successful in life. They believe the goal of special education instruction outside the regular classroom is to move students as soon as possible into settings closer to, if not in, the general education classroom. The inclusionists' main belief is that it is the educator's job to help students reach their highest academic level. Inclusionists believe in a continuum of placement and services that each child is an individual, and service plans should be decided on a case-by-case, individual basis (Fuchs & Fuchs, 1998).

Attitudes Toward Inclusion

Recent research indicates that teacher and administrative attitudes towards inclusion of students with special needs is the number one factor of success of an inclusion program (Ainscow, 2000; Forlin, Douglas, & Hattie, 1996; Kuglemass, 2006; Sacks & Watnick, 2006). Forlin et al. (1996) wrote, "While research has shown that many educators believe that a child with a disability has a right to equal educational opportunities, educators' attitudes towards inclusive placements were in general very negative" (p. 120). Furthermore, research indicates that educators' negative perceptions and attitudes increased proportionally with the severity of

the students' needs (Barnett & Monda-Amaya, 1998; Praisner, 2003; Villa & Thousand, 2005); whereas, teachers' and administrators' attitudes about inclusion of students with mild disabilities were generally positive (Avramidis, Bayliss, & Burdin, 2000; Burton & Pace, 2009; Hartfield, 2009; Praisner, 2003; Vaughn, Elbaum, Schumm, & Hughes, 1998). Other factors affecting teachers' attitudes and perceptions concerning inclusion were (a) their educational experience with students with disabilities, (b) special education training, and (c) administrative support.

Teacher attitudes toward inclusion. Research has indicated that there are four major factors contributing to successful inclusion: (a) administrative and teacher attitudes toward inclusion, (b) resources (planning time, paraprofessionals, specialists), (c) curriculum, and (d) special education training/professional development (Baker, 1994; Bennett, Deluca, & Bruns, 1997; Lipsky & Garnter, 1996; Schumm & Vaughn, 1995; York & Tundidor, 1995). Furthermore, In a study concerning teacher perceptions of heterogeneous education, Villa et al. (1996) stated, "for both general and special educators, administrative support and collaboration were powerful predictors of positive attitudes toward full inclusion" (p. 29).

Avramidis, Bayliss, and Burden (2000). In a study concerning mainstream teachers' attitudes toward inclusion, Avramidis et al. (2000) of the Research Support Unit at the University of Exeter in the United Kingdom found that teacher training played the most important role in teachers' attitudes and self-efficacy. In the quantitative study of 81 primary and secondary teachers in the Local Education Authority (LEA) of Southwest England, these researchers concluded that teachers who had experience, training, and support with inclusion had higher efficacy and more positive attitudes towards teaching students with disabilities and inclusion. Brownell and Pajares (1999) also wrote, "Teacher efficacy beliefs, that is, teachers' perceptions

of their own teaching competence, have been found to influence a myriad of teachers' behaviors and attitudes and to mediate the influence of other self-perceptions on those outcomes" (p. 154).

Austin (2001). In 2001, Vance Austin conducted a study defined as teachers' beliefs on co-teaching. There were 135 participants from nine school districts in northern New Jersey. These participants were collaborative partners consisting of 89 general educators and 46 special educators who taught K-12 in elementary, middle, and high schools. Participants had been collaborating co-teachers for at least a semester. The districts were considered middle income and located in the same county in northern New Jersey. The nine districts had an average enrollment of 6,400 to 7,800 students with an average class size of 27-31. The average teacher to student ratio was 1:12.0 to 1:13.7. The majority of the general educators (70.2%) and special educators (73.8%) surveyed taught at the middle and high school levels. The mean years of teaching experience of the educators were 17.1 years. The majority of the participants were female (73.7% of the general educators and 85.7% of special educators).

Austin (2001) used the Perceptions of Co-Teaching Survey (PCTS), which Austin developed in consultation with Fennick (1995), and an extensive review of research was used for the quantitative portion of the study. The survey was comprised of two components: Part I solicited demographic information, and Part II asked questions concerning four specific categories relevant to teacher perceptions of collaboration. Additionally, a semi-structured interview was conducted using the Perceptions of Co-Teaching script for the qualitative portion of the study.

The interview questions were in subsets using the Interview Format with the Probing Questions model by Cox (1996), where the first question is answered with by a "Yes" or a "No," and the following questions delved deeper. An equal number of general educators (6) and

special educators (6) were chosen for the interview portion of the study. Due to the much higher level of response from the middle and high school co-teachers, the results indicated co-teaching was either more developed or more prevalent at the secondary level in the districts surveyed (Austin, 2001). According to the survey, the main subjects co-taught were social studies, science, English language arts, and math at the secondary level and that special education co-teachers taught more collaborative classes than their general education counterparts. Furthermore, the survey results revealed that the majority of the participants did not volunteer to co-teach. Only 26.7% of the special educators and 28% of the general educators volunteered for the co-teaching assignments.

The data from the PCTS revealed that general and special education co-teachers both felt the general educator did more work in the co-teaching classroom. Both co-teaching partners felt that generally, they worked well together, asked for feedback, and profited from working together. The results indicate that the majority of the co-teachers, both the special and general education participants, felt that daily planning time was good in theory; however, the ones that did meet daily disagreed on the effectiveness. Additionally, a high percentage of both general and special co-teachers felt that the responsibilities should be established and maintained; however, a majority of them did not use this practice.

The research showed that even though only 35 of the 135 participants volunteered to co-teach, they believed co-teaching was an effective practice and they increased their knowledge base. The semi-structured interview data revealed that the co-teachers believed that the most effective teaching techniques used in their co-teaching practice were small group instruction and cooperative learning. In addition, the special educators said they gained more knowledge in the content areas and the general educator stated they increased their skill levels in differentiation,

curriculum adaptation, and classroom management. Both groups of co-teaching partners felt that administrative support, scheduled planning time, adequate supplies, and in-service training were critical to the success of co-teaching. Furthermore, both special and general education co-teachers indicated they needed more planning time (Austin, 2001).

Administrative attitudes toward inclusion. Cox (2008) wrote, "The principal creates, drives, inspires, establishes the culture, engenders the school's spirit, dreams the vision, and serves as a role model to ensure everyone is integrated into the all-inclusive learning environment" (p. 1). Research indicates that administrators with more positive attitudes towards inclusion were more likely to place students in a less restrictive environment (Praisner, 2003; Shanks, 2009). Furthermore, administrators with more experience and training were more likely to place students in inclusion (Horrocks, White, & Roberts, 2008). Research throughout the past 10 years has shown that administrators were generally positive towards inclusion, as long as it didn't interfere with instruction (Cox, 2008; Shanks, 2009). Additionally, administrative support for inclusion has been shown to be a critical factor in the success of inclusion, especially for the co-teaching model of inclusion (Hang & Rabren, 2009; Keefe & Moore, 2004).

Barnett and Monda-Amaya (1998). Barnett and Monda-Amaya (1998) undertook a study in Illinois, examining principals' attitudes toward and knowledge of inclusion. Researchers randomly selected 115 schools out of the 3,879 schools in Illinois for participation. Surveys were mailed to 59 out of 2,648 elementary schools, 27 out of 574 junior high schools, and 29 out of 657 high schools. There was no further prior differentiation for type, size, or inclusiveness of school. The rate of return was 57% (65 schools) dispersed between elementary, middle, and high school in both rural and urban settings. Only three of the 65 respondents had special education teaching experience and the majority of the administrators had master's

degrees (86%); nine had doctorate degrees (14%). Most of the administrators were male (70%) and 30% were female with one not indicating gender. The age range of the principals was 36 to 68 years of age with the average age being 47 years of age. The average years of experience were nine ranging from one to 36 years with a 6-year average at their current position. The average number of years in general education was 19. The highest number of administrative respondents was principal 89%, with superintendent/principal, assistant superintendent/principal, and assistant principal (or assistant superintendent for instruction) comprising 11% of the respondents.

Barnett and Monda-Amaya (1998) developed, piloted, and reviewed the instrument used with administrators from local schools and with graduate students and professors who were instructing and doing research on inclusion. The survey instrument had four sections: (a) background information about the principal and school, (b) leadership style, (c) administrators' definition of inclusion, their attitudes toward inclusion, and their schools' level of inclusion, and (d) a rating of 21 strategies and activities and the extent that they were used and the principals' perceptions of their effectiveness in inclusion.

The inclusion results showed that most administrators had more inclusive environments at their school sites for students with learning and behavior disabilities as compared to students with more moderate to severe disabilities (Barnett & Monda-Amaya, 1998). The high schools in the study had the highest number of students being serviced in the general education classrooms with either consultation 93% for students with learning disabilities (LD) and 69% for students with behavioral disabilities (BD). Furthermore, high schools reported a high percentage of resource programs for moderate to severely labeled students. They reported resource programs 47% of the time for students labeled *educable mentally handicapped* (EMH) and 20% for

students labeled *trainable mentally handicapped* (TMH). Elementary schools reported less inclusive practices with the use of consultation programs mainly for their students with LD 43% of the time, and junior high school 63% of the time (Barnett & Monda-Amaya, 1998).

For the second section on leadership styles, Barnett and Monda-Amaya (1998) reported that the majority of respondents (57%) chose the statement:

> Above all, I try to make sure that all employees are highly motivated and satisfied with their work. The goal is to nurture employees and develop a shared understanding about the goals of the group as we make important decisions together. (p. 185)

The next most chosen statement, chosen 30% of the time, was:

> Above all, I try to develop a school culture that shapes the behavior of employees in desirable ways. The goal is to encourage everyone to share in 'bottom up' decision making within the context of my vision and symbolic leadership. (p. 185)

The hierarchical style of decision-making statement was only chosen by 3% of the administrators and the remaining 10% chose a mediation style of leadership.

The highest mean ratings in the effects of practices in both extent and perceived effectiveness were reported in cooperative learning, collaboration, and heterogeneous/multi-age grouping. Additionally, they discovered that of the 13 highest rated practices "significant differences were found between the extent of use and perceived effectiveness, the higher rating was always in the perceived effectiveness column" (Barnett & Monda-Amaya, 1998, p. 190). Barnett, and Monda-Amaya (1998) concluded that across all grade levels there was a lack of knowledge base and understanding pertaining to inclusive educational practices in the state of Illinois. Moreover, the results indicated that administrators throughout Illinois appeared to have varying ideas and attitudes toward inclusion. Barnett and Monda-Amaya wrote, "The

overwhelming majority are not yet comfortable with the inclusive philosophy, nor do they feel that their teachers and communities are ready for its implementation" (p. 190).

Praisner (2003). In 2003, Cindy Praisner conducted a study surveying 408 elementary school principals' attitudes towards inclusion and the relationship between training, experience, and placement perceptions, in Pennsylvania (Praisner, 2003). Elementary schools with students K-6 only were randomly selected throughout Pennsylvania. The schools were various sizes ranging from 250 to 1,000 students, class sizes of 10 to 40 students, and most (47.1%) with a study body comprised of 6%-10% of students identified with disabilities in differing placements of inclusion.

Praisner (2003) designed the Principals and Inclusion Survey (PIS) to find out if there was a correlation between principals' attitudes and variables such as experience, program factors, and training. The survey consisted of 28 questions within four sections: "(a) demographics, (b) training and experience, (c) attitudes towards inclusion, and (d) principal beliefs about most appropriate placement" (Praisner, 2003, p 136).

Results of the study indicated that principals' attitudes towards inclusion were more positive when the questions were generic; however, when the language implied less voluntary participation and more mandatory compliance, the attitudes were less favorable. Like Barnett and Monda-Amaya (1998), Praisner (2003) found that the more special education credits and training principals held, the more positive their attitude towards inclusion. Additionally, the study determined that if principals had positive experiences with inclusion they were more likely to have a positive attitude towards inclusion.

Concerning placement perceptions, Praisner (2003) discovered that principals (29.6%) chose full-time regular education with support 29.6% of the time. Special education services

outside the regular education school were the least often chosen option (6%). Overall, regular education with full-time support or with a resource room was chosen 59.9% of the time. Praisner found significant relationships between a principal's attitude towards inclusion, positive experiences with inclusion, and their placement perceptions. The study indicated that principals who had more favorable experiences with inclusion chose more inclusive placements. Likewise, principals with a more positive attitude towards inclusion chose more inclusive placements. Praisner found that the category of disability was a factor in placement.

Similar to Barnett and Monda-Amaya (1998), Praisner (2003) found that the category of disability was a factor in placement. More specifically, she found that more severe disabilities, such as emotional disturbance (20.4%) and autism (30.4%), had lower rates of being chosen for regular education placement. Additionally, the study found that the only category that had a large number of negative experiences was the emotional disturbance category (51.4%). Speech and language impairment (93.7%), physical disability (87.4%), other health impairment (84.9%), specific learning disabled (81.9%), deaf/hearing impairment (74.5%), and blind/visual impairments (71.9%) were categories that principals most often chose for regular education placement with support. The most restrictive setting, outside the regular education school, was most often chosen for the categories of mental retardation (29.4%), neurological impairment (36.9%), multi-handicapped (39.1%), autism/persuasive developmental disorder (49.8%), and serious emotional disturbance (63.6%). It was noted that 11 respondents chose not to answer placement questions because they believed that placement decisions should be made on a case-by-case basis for each student.

Horrocks, White, and Roberts (2008). Judy Horrocks, from the Timothy School in Pennsylvania, George White from Lehigh University, and Laura Roberts from Roberts

Educational Research did a study examining principles' attitudes towards inclusion and the relationship to student placement in the state of Pennsylvania (2008). The study utilized stratified random sampling to identify 1,500 public school principals throughout the state. The sample included elementary, middle/junior, middle and high schools from all community types (urban, suburban, and rural). Of the 1,500 surveys sent, 571 completed questionnaires (38%) were returned.

The Principal's Perspective Questionnaire, developed by Horrocks—for her unpublished doctoral dissertation at Leigh University in Pennsylvania—was the instrument used for the study. It contained four parts: Part 1, professional and personal characteristics; Part 2, placement decisions for students with autism; Part 3, 17 specific attitudes about inclusion; and Part 4, general attitudes toward inclusion and special education. For Parts 3 and 4, a scale of 1 to 5 was employed, with higher scores analogous to more positive attitudes.

Part 2 of the survey was more complex. The study included a series of five detailed descriptions of students with autism. However, it was not divulged in the survey that the students described had autism. The principals then had five options to choose from for placement ranging from the least restrictive environment (LRE) in a regular classroom to the most restrictive placement outside the school in a special facility.

Consistent with Barnett and Monda-Amaya (1998) and Praisner (2003), Horrocks et al.'s (2008) results indicated a positive correlation between professional experience teaching children with autism the belief that they should be included and inclusion attitudes. The results indicated that a principal with professional experience with students with autism was more likely to recommend a more inclusive placement. Similarly, in a study of all middle school principals in South Carolina, Cox (2008) used an adapted version of Praisner's (2003) PIS survey and found

that middle school administrators' professional experience and training directly correlated to attitudes towards inclusion. Additionally, middle school administrators were less likely to place students with autism and behavioral disabilities in the general education classroom (Cox, 2008). In a study of principals' attitudes towards inclusion in the state of Georgia, Shanks (2009) concluded, "in short, principals are generally supportive of inclusion as long as it does not interfere with the rights of other students to learn" (p. 116). Furthermore, Horrocks et al. (2008) stated they were surprised personal experience with children with autism did not correlate with a more inclusive placement or more positive inclusion attitude. Similar to Praisner (2003), the study by Horrocks et al. (2008) predicted that principals who had positive experiences with inclusion would have a more positive attitude towards inclusion and are more likely to place a child with autism in a more inclusive environment.

Inclusion Model and Student Achievement

Research concerning the academic achievement of students with special needs in special education versus inclusion is inconclusive (Zigmond 1995, 2003). Forlin et al. (1996) wrote, "Although there has been considerable discussion regarding the strengths and weaknesses of either full or partial inclusion, there has been little evidence to support or justify either position" (p. 120). Recent research on inclusion indicates inclusion has positive social benefits and higher academic results for both special education and general education students (Ainscow & César, 2006; Burstein, Bears, Wilcoxin, Cabello, & Spagna, 2004; Liebert et al., 2006; U.S. Department of Education, 2007; Weiner, 2003). According to Rea et al. (2002), inclusion helps both groups of students learn how to be contributing members of society. Weiner (2003) further reiterated, "general education students can achieve academically as well as or better than their counterparts in non-inclusion classes" (p. 16). In their studies of inclusive schools, Ainscow and César (2006)

and Liebert et al. (2006) found similar results about achievement of general education students. Some reasons for this include the following: (a) students in inclusion classrooms receive more individualized instruction than students in non-inclusion settings, (b) teachers receive more specialized training, (c) teacher collaboration, (d) peer role models, (e) cooperative groupings, and (f) qualified assistance in the classroom (Ainscow, & César, 2006; Liebert et al., 2006; Weiner, 2003).

Achievement of Students With Disabilities in Inclusion

Research over the past 40 years, research indicates that students with disabilities that spend more time in general education outperform their counterparts in special day programs (Wang & Baker, 1985; Zigmond, 2003). Additionally, research shows inclusion of students with disabilities attributed to increase in social skills and social interactions (Lipsky & Gardner, 1996). Furthermore, inclusion and the practice of co-teaching especially have shown to have a statistically significant impact on student achievement (Giametti-May, 2009; Rea et al., 2002).

Wang and Baker (1985). In 1985, Wang and Baker from the University of Pittsburgh did a meta-analysis of 11 studies (out of a field of 264) that had been conducted from 1975 to 1984. The studies involved mainstreaming either full-time or part-time. Wang and Baker (1985) concluded that students with disabilities instructed in the general education classroom, both part and full time, consistently outperformed their counterparts in the special day classroom. Additionally, they determined that students with disabilities who were mainstreamed in classrooms that used best practices, as determined by research literature, had a higher incidence of positive versus negative outcomes. Likewise, in a meta-analysis of 13 studies and 129 comparisons, Baker (1994) determined that special education students did not perform better in non-inclusive settings. He found a small, statistically negative impact on students in segregated

special education placements. Furthermore, in an analysis of three meta-analyses, Baker, Wang, and Wahlberg (1995) concluded that students with special needs performed better both socially and academically in inclusion.

Lipsky and Gartner (1996). Lipsky and Gartner (1996) further corroborated Wang and Baker's (1985), Baker Wang, and Wahlberg (1995), and Baker's (1994) findings in their article in the *Harvard Review*, "Inclusion, school restructuring, and the Remaking of American Society." Lipsky and Gartner cited 12 studies with data indicating the positive effects of inclusion. They found that integrated models were more cost-effective and students with disabilities made higher gains in inclusion versus pull-out programs. Additionally, Lipsky and Gartner cited studies denoting that students with disabilities made academic gains on report cards, increased scores on criterion-referenced tests, and achieved higher attainment of IEP goals in inclusion versus traditional settings.

Furthermore, they found that inclusion contributed to more positive social interactions and improved social skills. An additional factor they discovered was inclusion improved perceptions of general education parents towards students with severe disabilities (Gartner & Lipsky, 1989; Lipsky & Gartner, 1996). None of the studies showed any negative effects on the general education population's achievement. However, Lipsky and Gartner do mention that "all reports about inclusive education are not positive" (p. 779), and they mainly come from programs where inclusion was not implemented appropriately and where students with disabilities were "dumped" into classrooms.

Placement and educational impact. The empirical evidence on the best placement for students with high-evidence disabilities is contradictory (Carlberg & Kavale, 1980; Fuchs et al., 2010; Zigmond, 2003). For example, Conrad Carlberg, from the Mid-Continent Regional

Educational Laboratory, and Kenneth Kavale, from the University of California, Riverside, found opposing outcomes for students with LD in comparison to students with intellectual disabilities their meta-analysis of 50 research studies of special versus regular education placement (Carlberg & Kavale, 1980). They found students with learning disabilities (LD), behavioral disabilities (BD), and emotional disturbance (ED) performed better socially and academically, gaining 11 percentile ranks in special placements. Conversely, yet in agreement with Wang and Baker (1985) and Baker (1994), their analysis showed students with an intellectual disability performed better in the general education setting. They found that students with moderate and mild intellectual disabilities dropped six to 13 percentile ranks respectively, in the special day classroom placement (Carlberg & Kavale, 1980).

On the contrary, the results from a study of 57 high school students in two suburban high schools in Georgia conducted by Fore et al. (2008) from the University of Georgia indicated there was no statistically significant difference of academic achievement for students with learning disabilities based on inclusive versus non-inclusive placement. Douglas Martsen of the Department of Special Education of the Minneapolis Public Schools conducted a study in 1987 that followed 11 students with learning disabilities from regular education placement to special education and studied the effectiveness of the experimental teaching approach. The study showed that 10 out of 11 students made significant progress, almost doubling their scores in reading over 10 weeks in special education versus the previous ten weeks in general education.

Sindelar and Deno (1978) came to a similar conclusion in a review of 17 research studies, in that pull-out programs proved more effective in raising the academic achievement of students with LD than general education classrooms. Additionally, Fuchs, Fuchs, and Fernstrom (1993) tracked students with learning disabilities from special education placement to general education

placement. They tracked math data for these students for ten weeks in special education and then seven weeks in general education. Comparable to Marston (1987), Fuchs et al. (1993) found that the students made no progress in general education; however, they made steady gains in special education. On the other hand, some studies indicate positive outcomes when students are included in general education classrooms (Dunn, 1968; Klinger, Vaughn, Hughes, Schumm, & Elbaum, 1998; Lipsky & Garnter, 1996; Peetsma, Veerger, Roelevand, & Karstmem, 2001; Rea et al., 2002). Klinger et al. (1998), from the office of school-based research at the University of Miami, research in 1998 examining the academic progress of students with and without disabilities who were participating in full-time inclusion. There were 114 participants (25 with LD) in grades three to six at an elementary school in a large urban school district in the Southeast United States. The teachers participated in a yearlong intensive training program on research-based instructional practices that had proven to be effective for inclusive settings for students with the variability of academic achievement levels. Klinger et al. found that the high achieving and low-to-average-achieving students made statistically significant progress on all math and reading measures. Overall most students with learning disabilities (LD) made improvements in reading however, not in math.

Similar to Carlberg and Kavale (1980), Klinger et al. (1998) found conflicting results. Even though many students with LD made progress, 20% of the students with LD and an additional 26% of students with low-to-average abilities made few or no gains. This evidence indicates that even with additional in-classroom assistance, training, guidance, and extra support many students with LD make minimal, if any at all, progress in reading in inclusive settings (Carlberg & Kavale, 1980; Fuchs et al., 1993; Klinger et al., 1998; Marston, 1987; Zigmond & Baker, 1990).

Peetsma, Veerger, Roeleveld, and Karstmem (2001). In 2001, Peetsma et al., from the University of Amsterdam, did a longitudinal mixed-methods study that focused on comparing the development of matched pairs of elementary students in special education in the Netherlands. This study additionally backed up the findings of previous international research. The study compared two groupings of students with mild disabilities: (a) students with learning and behavioral disabilities (LBD) and (b) students with mild mental retardation (MMR). This study collected data for 2-4 years. For the quantitative portion of the study, general education students (ages 7 and 8 years of age) were matched with a comparable pair by similar scores on their standardized mathematics or reading/language arts tests or their instructors' assessment of their school motivation, or if their self-image fell in the lowest 20% of the representative sample of Dutch students on one or more of these variables. After 2 years, there were 504 students involved in the study. After 4 years, 216 students were involved with the study.

For the qualitative portion of the study, 34 students who showed divergent development after 2 years were selected in order to examine the possible causes of developmental differences between pairs of students who at first seemed to be similar. Teachers and students were interviewed to investigate processes in their education that could be the cause of the differences.

After the first 2 years, Peetsma et al.'s (2001) research findings indicated that students with a learning behavior disability (LBD) performed better academically in mathematics in regular education classrooms than special education classrooms. They also discovered that students with MMRs' motivation towards school and psychosocial development scored higher in the special education setting. After 4 years of data, students in inclusive regular education settings performed significantly higher in both language and mathematics than students in special

education settings. There was a significant statistical difference in students' psychosocial development in special education versus regular education after 4 years.

The qualitative findings generally found the more developed student of the pair made better progress across all developmental domains. There were no clear findings for the causes of the lack of development. Peetsma et al. (2001) did discover that students with psychosocial development issues made more progress in special education settings than in regular education settings. Moreover, students with problems in psychosocial development made less progress than students who had only cognitive issues. They further stated that special education placement might be a better option for some students.

Rea, McLaughlin, and Walther-Thomas (2002). Rea et al. (2002) conducted a study of all 8th-grade middle school students with learning disabilities (LD) in two suburban schools in a school district in the southeast of the United States. This study corroborated previous research on the academic benefits for students with disabilities when placed in a co-teaching model of inclusion. This study compared a middle school that practiced a co-teaching form of inclusion with another middle school that had a resource pullout program. Students in the inclusion school had better attendance, higher grades in content areas, and scored higher on the language arts and mathematics subtests of the Iowa Basic Skills Test (IBST).

The 68 participants in the study were classified as LD consistent with state and federal regulations (Rea et al., 2002). Participants had been enrolled in their LD programs for at least 2 years. Thirty-six participants were enrolled in an inclusive support model at Enterprise Middle School, and 22 students received special education services through a pullout resource model at Voyager Middle School. The design used archival quantitative and qualitative data from both

schools to examine the relationship between placement and three specific aspects of school performance: (a) attendance, (b) behavior, and (c) achievement.

The academic achievement measures utilized in the study by Rea et al. (2002) were the *Iowa Test of Basic Skills* (ITBS) and final course grades for 8th grade in all content areas. Additionally, data from the subtests in mathematics, reading, and written language from the state's academic proficiency test in reading, Literacy Passport Tests (LPT), were examined for nonstandard administration, the number of administrations, and highest scores. Additionally, Rea et al. reviewed students' individual evaluation reports, attendance records, report card grades, special education eligibility records, class schedules, student scholastic records, chronological age, mother's education level, socioeconomic status, gender, race, estimated IQ at the most recent 3-year evaluation, years enrolled in the present school district, disciplinary actions, and years receiving special education services.

Enterprise Middle School was inclusive, and the special education and general education teachers co-taught for four classroom periods each day. Special and general education teachers planned and collaborated on all aspects of the classroom and student progress during individual planning time. Once a week, the special education staff met together to discuss schedules and difficult cases or concerns. Conversely, Voyager did not provide any special education services in-class. All services were pull-out and were provided during the students' elective periods. Students had to give up one or both electives for special education services. Services were remedial in the sense that the special education teacher worked in small groups helping students finish assignments for their general education classes or assisting them in areas of weakness (Rea et al., 2002).

After gathering and examining all of the qualitative and quantitative data, Rea et al. (2002) reported a significant difference in student attendance between the two schools. Students with LD at Enterprise had a 5.6 day mean rate of absences, for the 8th grade; whereas, Voyager's mean rate was 8.7 days. Additionally, six students at Enterprise missed no school during their eighth-grade year. There was no statistically significant difference for in-school or out-of-school suspensions between the two schools. However, the specific data showed that six students at Voyager received in-school suspension for a total of 25 days for 12 infractions. There were no in-school suspensions at Enterprise. Additionally, for out-of-school suspensions one student was suspended for seven days for one incident; whereas six students were suspended for eight incidents for a total of 17 days (Rea et al. 2002).

Academic results demonstrated that students at Enterprise had statistically significant higher report card grades, in all content areas than students at Voyagers. Likewise, there was a statistically significant difference between Enterprises' and Voyagers' ITBS scores. In the subtests for language arts and math, students with LD at Enterprise had a higher mean standard score than the students with LD at Voyager. However, students with LD at both schools had similar standard mean scores on science, social studies, and reading comprehension subtests (Rea et al., 2002).

Giametti-May (2009). Giametti-May (2009) did a correlational study on the impact of inclusion supports for students with disabilities on state accountability measures within California school districts. Her study involved 278 schools in nine northern counties of California (El Dorado, Humboldt, Marin, Yolo, Kings, Madera, Napa, Sutter, and Shasta). Inclusion supports per school site were the independent variables, and the English Language Arts and Mathematics California State Test (CST) for 2006 were the dependent variables correlated

for this study. Giametti-May (2009) compared the CST scores of 833 students with a sub-group of 414 student participants with learning disabilities. Inclusion supports examined as the independent variable were (a) special education and general education student enrollment, (b) Title I designation, (c) teacher-student ratio, (d) qualifications of instructional staff, (e) number of computers per school site, (f) number of students per computer, (g) number of classrooms with computer access, (h) number of paraprofessionals per school site (full- and part-time), (i) average class size, (j) number of instructional staff and support staff (librarians, psychologists, counselors, nurses, resource teachers, and speech therapists), and (k) number of administrators.

The study further corroborated previous research on the benefits of time spent in an inclusion setting (Giametti-May, 2009). The research indicated that school sites where a higher percentage of students receiving special education services spent 20% or more of their instructional day in the general education classroom scored higher on the language arts and mathematics sections of the CST than comparison school sites. Additionally, school sites with a smaller student-teacher ratio scored statistically significantly higher on the language arts and mathematics sections of the CST. Moreover, Giametti-May (2009) discovered a statistically significant correlation between school sites that had speech therapists and librarians and with higher test scores on the CST for language arts and mathematics.

Achievement of Students Without Disabilities in Inclusion

Overall, research indicates that overall general education students perform as well or better in inclusive environments than in traditional settings (Ainscow & César, 2006; Burstein et al., 2004; Fishbaugh & Gum, 1994; Hunt, Staub, Alwell, & Goetz, 1994; Liebert et al., 2006; Lipsky & Gartner, 1996; Ritter, 1999; Sharpe & York, 1994; Weiner, 2003). Hartfield (2009)

compared the math achievement of 192 students without disabilities in inclusion to a control group of 270 students in a traditional non-inclusion setting in eight Mississippi schools. Hartfield's research indicated there were no statistically significant differences in either groups' academic performance, as measured by the Mississippi Curriculum Test 2 (MCT2). Klinger et al. (1998) found that high achieving general education students made significantly higher progress in inclusive settings than their counterparts in non-inclusion settings. Similar to Klinger et al., in a study of inclusive settings in the rural setting of Billings, Montana, Fishbaugh and Gum (1994) found "achievement test data demonstrated consistent academic gains made by regular education students" (p. 416).

After an investigation exploring the use of student and teacher time in an inclusive elementary school, Hollowood, Salisbury, and Rainforth (1995) concluded, "the presence of students with severe disabilities in general education classrooms did not significantly affect the level of engaged time of classmates without disabilities" (p. 249). Furthermore, Bateman and Bateman (2001) stated that the curriculum was not watered down in inclusive classrooms; on the contrary, inclusive classrooms addressed more of the curriculum leading to higher academic achievement for all students. Currently, the research indicates that there is no statistically significant data indicating the negative effects of inclusion on students without disabilities. Additionally, the data indicates positive social outcomes and the same or higher academic results for students without disabilities (Ainscow & César, 2006; Bateman & Bateman, 2001; Burstein et al., 2004; Hartfield, 2009; Liebert et al., 2006; Weiner, 2003).

One common factor throughout the research studies was that all schools with positive outcomes for students educated in inclusion had the necessary support in the general education classroom for students with disabilities (Burstein et al., 2004; Giametti-May, 2009; Klinger et al.,

1998; Peetsma et al., 2001; Rea et al., 2002). Moreover, teachers in successful schools had received training on best practices for inclusion; had time for collaborative planning between special and general educators; and students and teachers had the necessary in-classroom supports (such as paraprofessionals, specialists, and technology) needed for student and teacher success (Burstein et al., 2004; Fuchs & Fuchs, 1998; Peetsma et al., 2001; Rea et al., 2002; Vaughn et al., 1998; Villa & Thousand, 2005). Furthermore, many participating school sites received outside assistance and training (Burstein et al., 2004; Vaughn et al., 1998; Villa & Thousand, 2005).

Researchers warn about the capability of a general education classroom to accommodate inclusion with increasing demands, burgeoning classes of 25 to 45 students, a diverse range of academic ability amongst general education students, and the fact that a significant number of students with disabilities do not respond to best practices (Fuchs & Fuchs, 1998; Zigmond, 2003). Co-teaching where there are two educators in the classroom is one model of inclusion that assists in alleviating the large class size while meeting the needs of all students and the requirements of both the NCLB, ESSA, and IDEIA mandates (Giametti-May, 2009; Lipsky & Gartner, 1995; Rea et al., 2002). Research over the past 20 years indicates that co-teaching with the proper supports, resources, and training can be an effective model of inclusion (Hang & Rabren, 2009; Kohler-Evans, 2006; Rea et al., 2002; Wang & Baker, 1985).

Inclusion Model of Co-Teaching

Inclusion and co-teaching are not synonymous; co-teaching is a model of inclusion. Co-teaching is often referred to as a professional marriage because of the importance of a strong relationship and professional partnership (Friend et al., 2010; Kohler-Evans, 2006). Cook and Friend (1995) defined co-teaching as "two or more professionals delivering substantive instruction to a diverse, or blended, group of students in a single physical space" (p. 2). Co-

teaching is comprised of four key components: (a) one certificated special education teacher and one certificated general education teacher, (b) heterogeneous groups of students, (c) one classroom where students with special needs are educated alongside their general education peers, and (d) both educators involved in instructional delivery (Cook & Friend, 1995; Villa et al., 1996). Parallel teaching; team-teaching; station teaching; alternative teaching; one teach, one assist; and one teacher, one observe are the six models or approaches most commonly used by practitioners and cited in research (Cook & Friend, 1995; Dieker & Murawski, 2008; Hang & Rabren, 2009).

Friend (2008), explained that there are six common approaches to co-teaching; she further stated that four of these approaches should only be used occasionally: (a) one teach, one observe; (b) team-teaching; (c) alternative teaching; (d) parallel teaching, and (e) one teach, one assist. The one teaches, one assist is the most frequently used approach, especially in the beginning stages of co-teaching (Friend, 2008).

One teach one observe model, is exactly what the name states: one educator teaches, and the other observes. In the one teach one observe model, one teacher instructs while the other teacher systematically collects valuable data. Similar to one teach, one observe is the *one teach one assist* is where one teacher, usually the general education teacher, teaches, and the other acts as an assistant walking around the classroom assisting students.

The *team-teaching approach* involves teachers working side by side to deliver instruction, where both teachers are at the front of the room delivering instruction. *Alternative teaching* is the practice of one teacher working with most of the students, while the other teacher pulls a small group for review, intervention, or pre-teaching.

According to Friend (2008), *station teaching* and *parallel teaching* are the two approaches that should be used more frequently. Station teaching is where students are placed in groups; two groups are led by teachers and one or more groups may be independent. All groups are working on separate activities and the students rotate through each station. Parallel teaching is where the students are divided into two groups and both teachers are teaching the same content at the same time (Austin, 2001; Villa et al., 1996).

Recent research on co-teaching shows that teachers, students, and administrators have positive attitudes towards co-teaching (Austin, 2001; Hang & Rabren, 2009; Keefe & Moore, 2004; Kohler-Evans, 2006; Wilson & Michaels, 2006). Additionally, co-teaching assists schools in meeting the highly qualified teacher requirements for NCLB provides more in-classroom support for both special education and general education students and meets the requirements of LRE for IDEIA (Allen, 2006; Gordon, 2006).

Benefits of co-teaching. Co-teaching has shown to have many benefits for students with disabilities, students without disabilities, and teachers (Hartfield, 2009; Rea et al., 2002). Co-teaching makes it possible for secondary schools to meet the federal mandated to staff schools with highly qualified teachers. Furthermore, research indicates that students with disabilities have higher achievement, gain more content-area knowledge, and increase social skills in the general education setting. Additionally, students without disabilities benefit both academically and socially by having students with disabilities and special educators in their classrooms (Hartfield, 2009). A student without disabilities often struggles in content areas, and special educators assist with accommodations for academics and behavior (Kohler & Evans, 2006;Magiera et al., 2005).

Magiera, Smith, Zigmond, and Gerbauer (2005). Magiera et al. (2005) conducted a study on the benefits of co-teaching in secondary mathematics classes. Trained observers conducted a series of 49 observations of secondary co-taught mathematics classes. Data were collected on 10 pairs of co-teachers encompassing rural, suburban, and urban high schools in two Mid-Atlantic states. Observations were conducted for the entire class periods lasting 40 to 50 minutes, documenting teacher roles. Three observations were at the beginning of second semester and up to three later in the same semester. The participants in this study had been co-teaching for 3-5 years.

Magiera et al. (2005) found that in the majority of the observations (67%), the prevalent model of co-teaching observed was the one teach one assist. The general education mathematics teacher was providing primary instruction while the special education teacher roamed from student to student in a supportive role. Additionally, in 24 out of the 49 observations (49%), the one teaches model one observe model was utilized where the general education teachers provided primary instruction, and the special education teacher collected data or observed the lesson. The researchers deduced that the one teaches one assist model was the predominant model due to the traditional pattern of teaching mathematics, lack of co-planning time, and need for training on co-teaching. The traditional method of teaching mathematics is review, introduce new concepts/problems (sometimes guided practice), and independent work. Even when a second certified special education teacher was brought into the classroom the traditional pattern of instruction remained the same.

According to Cook and Friend (1995), the one teach one assist model of co-teaching is suitable for the beginning stages of co-teaching while teachers are learning the process. These teachers, however, had been co-teaching for 3-5 years, and according to research they should

have moved on to using other models such as team teaching, parallel teaching, and station teaching (Cook & Friend, 1995; Magiera et al., 2005). Nevertheless, team teaching was only observed 18% of the time for a short period, 60 minutes out of total of 405 minutes (15%). Additionally, in only three occasions (6%) special educators were seen leading the classroom instruction and the total time was less than 20 minutes out of 49 observations. Teaching in small groups was also only observed twice for a total time less than 20 minutes.

Four special education teachers and four general education mathematics teachers were interviewed (Magiera et al., 2005). During the interview phase, their comments coincided with a general education teacher being the primary deliverer of instruction and the special educator playing a mainly supportive role. A special educator explained during the interview questioning, "Co-teachers need to develop a rapport in the classroom so that the kids feel that both teachers are equals" (p. 22). Mageira et al. (2005) further explained that the purpose of co-teaching is not to have two teachers that are experts in the subject area. Rather, the general education mathematics teacher should be the primary mathematics instructor and the special education teacher explicitly teach processes that help students with disabilities *understand* mathematical concepts.

Magiera et al.'s (2005) data indicated that general educators believed that co-teaching benefited students because they received more attention with two teachers in the classroom. The researchers further reiterated that co-teaching could produce favorable results and be an efficient model of instruction to assist meeting the needs of all learners due to the blending the content expertise of the general educator and the differentiating skills and strategy skills knowledge base of the special educator.

Kohler-Evans (2006). Kohler-Evans from the University of Central Arkansas conducted a study in 2006 on the concerns and attitudes of secondary teachers in Seattle, Washington. Participants were from 15 urban and suburban districts throughout the city. Special education and general education co-teachers were interviewed on a one-on-one basis using a structured interview format consisting of a series of closed and open-ended questions where co-teachers were asked to impart their opinions and factual information about their experiences with co-teaching and the effects of co-teaching. Seventy-seven percent of the respondents indicated that the co-teaching positively influenced student achievement.

Consistent with findings by Magiera et al. (2005), Austin (2001), and Keefe and Moore (2004), the data showed that the participants believed that common planning time was the most imperative aspect in a co-teaching partnership. According to Kohler-Evans (2006), other critical factors in a successful co-teaching relationship were (a) a positive working relationship, (b) shared philosophy and responsibilities, (c) mutual respect, (d) analogous teaching styles, (e) equal commitment, and (f) shared resources. Even though the co-teachers in this study did not volunteer to participate in co-teaching and few had prior training or planning in co-teaching, 97% of the respondents asserted they would partake in a co-teaching relationship if the opportunity arose. This 97% of both special education and general education teachers specified that co-teaching with the extra support from a teacher was priceless, reached more students, and was enjoyable. The 3% who indicated they would not partake in co-teaching again gave reasons such as the lack of training, limited resources, and that they believed co-teaching does not meet the needs of all students (Kohler-Evans, 2006).

Challenges of co-teaching. Planning time, relationships, administrative support, and quality training are the most reported challenges of co-teaching reported in the research (Austin,

2001; Isherwood & Barger-Anderson, 2008). Many times special educators complain of being treated as an assistant, whereas general educators report that special educators are not knowledgeable in the content areas. Mutual respect and relationships between co-teachers are critical for the success of co-teaching (Keefe & Moore, 2004). In almost all of the research over the past 30 years, planning time was shown to be a major factor in the success of co-teaching (Austin, 2001; Isherwood & Barger-Anderson, 2008). Additionally, administrative support and quality professional development/training were indicated to be important factors in the success or failures of co-teaching programs (Austin, 2001; Hang & Rabren, 2009).

Keefe and Moore (2004). Keefe and Moore from the University of New Mexico conducted a qualitative study in 2004, exploring the challenges of co-teaching at the high school level. Keefe and Moore (2004) conducted semi-structured interviews with both special and general educators who were co-teaching partners in a large suburban high school in southwestern United States. The high school had implemented co-teaching in the late 1980s; however, it was still not a school-wide practice. Four special education teachers and three general education teachers who were co-teaching or who had co-taught in the past participated in the study. The teachers had from 2-20 years of experience. Approximately 22% of the students were eligible for special education including giftedness. The majority of the students with disabilities who were placed in the co-teaching inclusive environment had high incidence mild disabilities, and they were predominately students with specific learning disabilities. Students with more moderate to severe disabilities were educated mainly in self-contained special day classrooms.

Keefe and Moore (2004) discovered three major themes arising from the analysis of the interview data. The first theme was the collaboration of the two co-teaching partners. The teachers stressed that being able to choose partners, and the ability to communicate was of

upmost importance. The teachers interviewed felt that co-teachers should have input on selecting their partners. A general education teacher commented, "If you are having some conflict, but something made you uncomfortable, or you didn't agree; you have to discuss right away. You know it's like a marriage" (p. 82). A special educator reiterated, "Teachers are funny critters, they're very territorial. I couldn't imagine me going in and, you know, playing by someone else's rules. And that's the thing I really had a problem with" (p. 81).

According to Keefe and Moore (2004), a sub-theme in collaboration was logistics, such as class size and planning time. These results are consistent with Austin (2001). Teachers stated that the programming of students into classrooms, class size and the number of students with disabilities in the inclusive classroom were important factors in the success of co-teaching. Additionally, finding co-planning time and basic communication time was found to be difficult and needed as one general education co-teacher bemoaned, "we were planning on the fly most of the time. We talked after school. A lot of times we talked at lunch" (p. 82).

The second theme that emerged from the interviews was the role and responsibilities of the co-teachers (Keefe & Moore, 2004). Overall, both co-teaching partners had difficulty determining their roles and responsibilities within the inclusive co-teaching classroom. Even though there was a variation among the teams most teams settled into the general education teacher, taking most of the responsibilities for whole group instruction, planning, and curriculum; whereas, the special education teacher was responsible for curriculum adaptations, differentiation, discipline, and assisting individual students. According to the interview data, many times special education teachers felt as if they were teaching assistants. One special education co-teacher explained, "I focus a lot on my kids, but no one in the classroom knows who I am really…every once in a while I might teach a lesson, but for the most part, I just help

the teacher with whatever is going on" (p. 82). Another special education teacher lamented on how she felt as though she was treated as an assistant, "it can be insulting…as 'I need some coffee'" (p. 83).

On the other hand, some general education teachers did not see the purpose of having a special education teacher in the classroom due to their lack of content knowledge. One commented, "The kids like her….but I don't understand the purpose of having her in my classroom" (p. 83). Another felt it was troublesome, "it was more of a hindrance than a help in the room because it was another person who didn't know her material" (p. 84). One special educator concurred with need for special educators to have content knowledge, "You have to know the curriculum. You have to know the subject area. Because if you don't, they don't trust, you can't help them as much, it just doesn't work out" (p. 84). Both co-teaching partners, general and special educators, stated the need for special education teachers to have content knowledge in at least one or two subject areas. General education teachers, however, appreciated the special education teachers' knowledge of disabilities and of how to adapt curriculum to meet students' needs. One general educator stated, "it's just real practical stuff….What can I do to help this kid understand rather than get frustrated" (p. 85).

Grading practices was the one area that was most challenging for the co-teachers. There was great variability in the grading practices. Some general education teachers were adamant that all students should be graded the same, yet others did individualized grades. Sometimes the special educator was responsible for all of the grading for students with disabilities. Additionally, some teachers collaborated on grading and negotiated the responsibilities (Keefe & Moore, 2004). In general, both special and general educators believed they were not fully prepared for co-teaching. They stated that special education teachers needed more knowledge in

content areas and general educators would benefit from training in special education. Both special and general education teachers felt it would be beneficial to gain more skills in collaboration (Keefe & Moore, 2004).

Implementation

Isherwood and Barger-Anderson from Slippery Rock University conducted qualitative research in 2008 on a suburban middle school in Western Pennsylvania, examining one school's adoption and implementation of the co-teaching model to move from mainstreaming to inclusion. A case study design using a naturalistic approach allowed the researchers to study the implementation and adoption of co-teaching as events occurred naturally. The middle school consisted of grades six through eight, located in an upper-middle-class socioeconomic community with the students scoring higher than average on statewide assessments. The school's population was approximately 650 students with 60 faculty members and in its first year of implementing co-teaching in grades six and seven. The researchers used criterion sampling where the participants were either special education or general education teacher assigned to at least one co-teaching a period a day.

Isherwood and Barger-Anderson (2008) conducted two interviews with each participant, completed 96 classroom observations throughout the school year, and examined documents related to co-teaching at the middle school. There were two themes that emerged throughout Isherwood and Barger-Anderson's (2008) research: (a) Practices such as logistics, resources, administrative validation, and program support; and (b) co-teaching relationships.

Practices. Consistent with Keefe and Moore (2004), Isherwood and Barger-Anderson (2008) found that co-teaching participants were dismayed that the co-teaching partnerships were arranged according to schedules, logistics, and available resources by the principal without any

consideration to teaching styles and personalities. The second theme, which is consistent with the findings of Austin (2001), was the need for administrative validation and support. Isherwood and Barger-Anderson (2008) found that teachers who had fewer visits from administration and lacked positive feedback from the administration had poorer results. Furthermore, teachers were dismayed by the administration's lack of participation in the co-teaching initiative. A sixth grade English teacher stated:

> There was no teacher input in the co-teaching initiative. We showed up to school one day and found out we would be doing co-teaching beginning next school year. They never asked us what we thought about it or who we wanted to work with or anything. (Isherwood & Barger-Anderson, 2008, p. 126)

Relationships. Research has shown that the co-teacher's relationship is a key factor in success in the co-teaching classroom (Walter-Thomas, 1997). Mutual respect, communication, experience, training, similar philosophical teaching and methodology beliefs, shared responsibilities, and taking time to co-plan are critical factors in the success of a co-teaching partnership (Austin, 2001; Walther-Thomas, 1997). Similar to Keefe and Moore (2004), the data indicated general education co-teachers' frustration with special educators' lack of content knowledge and both special and general education co-teachers' need for mutual respect and effective communication. Isherwood and Barger-Anderson (2008) found that the co-teachers would publicly state they were able to accommodate for the differences in professional values and teaching styles; however, data from the interviews and observations indicated disparity with what was stated and actual practices and personal beliefs. For instance, a seventh-grade general education English co-teacher commented on her experience with her co-teaching knowledge of seventh grade English stating, "Special education teachers do not have the background to teach

seventh grade English…They need time to figure it out and learn it. Until that happens, she [special educator] is just going to be an aide in my room" (Isherwood & Barger-Anderson, 2008, p. 125).

According to Isherwood and Barger -Anderson (2008), both co-teaching partners felt that the division of responsibilities needed to be delineated more specifically by the administration. The data showed the general educators believed it was not respectful to delegate responsibilities, yet special educators felt uncomfortable taking on instructional tasks because they did not want to encroach upon the general educators' classroom and content expertise. Both co-teachers wanted administration, be it the school administrator or district administration, to assist with the delegation of roles and responsibilities of the co-teaching partners. Isherwood and Barger-Anderson (2008) data showed that general educators wanted special educators to take a more active role in instruction and be more responsible for all students. One sixth-grader general educator commented, "All I want is for my co-teaching partner to take an interest in teaching some of the content.… We have to determine who is doing what next year. We have to get on the same page" (Isherwood & Barger-Anderson, 2008, p. 126).

Hang and Rabren (2009). In 2009, Hang and Rabren, from Auburn University, conducted a study of seven schools' first year of adoption and implementation of co-teaching in a southeastern U. S. public school system. In this study of four elementary, one middle school, one junior high, and one high school, the researchers sought to garner knowledge in identifying teachers' and students' perspectives of co-teaching and the efficacy of this approach. Hang, and Rabren (2009) used observations, surveys, and records analysis (attendance records, SAT scores, and discipline records) as data sources.

There were 45 participants in this study (82% of co-teachers in the school system): 14 special educators and 31 general educators from first grade to tenth grade. Fifty-two percent of the students with disabilities in the school system (58 students) were also participants in this study. Special educators co-taught with more than one general education teacher and the co-teaching model was observed in the four core subject areas of English/language arts, math, social studies, and science. Hang and Rabren (2009) developed and utilized the *Teacher's Perspective and Student's Perspective Surveys*, the information found in over 15 pieces of co-teaching literature, to identify teachers' and students' opinions and attitudes towards the use of the co-teaching model.

Contradicting previous research by Rea et al. (2002), Hang and Rabren (2009) found that students with disabilities had more absences, tardiness, and discipline referrals to the office in their first co-taught year than in the previous school year. The explanation was not determined; however, the researchers deduced that the increase in referrals might be due to having two teachers in the classroom and the increase in absences may have correlated with the confusion of roles and responsibilities of the educators.

Furthermore, Hang and Rabren (2009) discovered that even though the data showed there were more discipline referrals, it conversely indicated that all three participant groups believed students' behavior was better in co-taught classrooms and that co-teaching was the positive factor in students' improved behavior. The researchers surmised that one of the factors for this discrepancy could be that there are two teachers in the classroom and extra set of eyes, thus lead to more students being caught with adverse behaviors. Moreover, students and general education and special education co-teachers were in agreement that students learned more, had the necessary support, and increased self- confidence in co-taught classrooms. Coinciding with

findings of Fennick and Liddy (2001), results of the *Teacher's Perspective Survey* showed that special education and general education teachers both perceived that they each were more responsible for behavior than their co-teaching partner (Hang & Rabren, 2009).

The results of the teacher's surveys indicated that both general education and special education teachers valued common weekly planning time during school hours to develop comprehensive plans for content, behavior management, and instructional strategies critical to the success of students in a co-teaching environment (Hang & Rabren, 2009). Consistent with findings by Austin (2001) and Keefe and Moore (2004), data indicated that co-teachers found it highly valuable to have routine scheduled planning time to discuss issues relevant to the co-teaching experience such as teacher expectations, differentiation, methods, and use of instructional strategies.

Similar to findings by Austin (2001) and Rea et al. (2002), Hang and Rabren (2009) discovered co-teachers had the impression that students with special needs made more academic gains in co-taught classrooms. In this study, the co-teachers' beliefs coincided with the data. Students with disabilities who were in the co-taught classrooms scored significantly higher on standardized testing in the areas of math and reading than they did their previous year when they were not in co-taught classrooms.

Professional development. The Every Child Succeeds Act (2015) redefined professional development as "activities that are sustained (not stand-alone, 1-day, or short-term workshops), intensive, collaborative, job-embedded, data-driven, and classroom-focused" (S. 1177, Section 8002, page 295, paragraph 42*).* Throughout the research on co-teaching, ongoing quality professional development was shown to be one of the most critical factors in students'

academic performance and positive co-teaching attitudes and relationships (Lipskey & Gartner,1987; Peetsma et al. 2001; Villa & Thousand, 2005).

Burton and Pace (2009). Burton and Pace (2009) conducted a 3-year case study of pre-service teachers of mathematics in inclusive classrooms; they came to similar conclusions as Avramidis et al. (2000) concerning teacher education on inclusive practices. The participants of the study were second-semester students in a general education elementary program in the process of obtaining a certification in elementary education. In year one, the sample was 12 female students and one male student. In Year Two and Three, the sample size was two males and six females, and one male and four females, respectively.

The case study covered three modules of instruction: one per year. The first 2 years of instruction focused on gaining knowledge including the following: (a) the process and content standards of the National Council of Teachers of Mathematics standards; (b) necessary mathematical skills needed for success in mathematics, math assessment practices, developmental activities, and (c) observable traits used to determine if students have learning disabilities.

Pre- and post-surveys were given in the first and second year. In the first year, participants responded positively about teaching mathematics with no statistically significant change. In the second year, participants showed the same positive rating; however, they had a slightly higher self-efficacy towards instructing mathematics to students with disabilities. In the third year, qualitative data were collected. Teachers' journals were examined and coded for patterns and themes. Year Three's module consisted of fieldwork and showed the most significant change in teachers' attitudes. All teachers stated that the experience gave them more confidence in their capabilities to instruct mathematics to students with disabilities. All teachers

had positive comments about the experience. One teacher stated, "This experience was one of the better ones because I never came out of a classroom before and felt I helped anybody, this experience was nothing but rewarding" (Burton & Pace, 2009, p. 112). Another teacher wrote that, "This course has given me so much and so many wonderful ideas that I now have such a great feeling when it comes to teaching mathematics" (Burton & Pace, 2009, p. 112).

Bryant-Davis, Dieker, Pearl, and Kirkpatrick (2012). Bryant-Davis et al. (2012) conducted a 5-year project from 2005 to 2010: the Arkansas Department of Education (ADE) co-teaching project. This co-teaching project was developed to provide implementation assistance to Arkansas schools for a co-teaching service delivery model for students with disabilities. The systematic change was provided annually for 5 years "through a comprehensive professional development model including face-to-face and online professional development, technical assistance, informational resources, and ongoing evaluation" (Bryant-Davis et al., 2012, p. 571). The ADE co-teaching project participants included 143 school districts, 3920 students, 789 teachers, and 208 schools in the state of Arkansas. ADE partnered with The University of Central Florida (UCF) for the creation, delivery, implementation, and evaluation of the 5-year ongoing professional development for the ADE co-teaching project.

The year before the project began, LRE data for the state of Arkansas indicated that Arkansas was 9% below the national average for students' education: less than 21% outside the general education classroom (Bryant-Davis et al., 2012). After 4 years of the project there was a 24% increase from 41% to 51.80% in 2009 (Bryant-Davis et al., 2012). Even though it is hard to determine if the ADE co-teaching project was the main factor, cohorts from the first 2 years did state they had plans to double the number of co-taught classrooms, which would more than double the students taught in a more inclusive co-teaching setting.

A key factor of the ADE co-teaching project team was that it served an advisory role for statewide issues of co-teaching. In this role, it worked to design regulations and rules for effectiveness, such as (a) number of students with disabilities per classroom, (b) selection of students, (c) assessments, (d) quarterly progress reviews, (e) grading practices, and (f) teacher/pupil caseloads. Additionally, professional development was implemented systemically throughout the schools and the state. Each school had a building leadership team (BLT) comprised of a building administrator (principal or assistant principal), general education co-partner, special education co-partner (CP), and one other school site leader, such as coordinators and lead teachers. The BLT received the same training as the CP's to ensure consistency of the program. Each school received a one-day training (BLT and four CP teams), onsite coaching, follow-up topical webinars, co-teaching resources, and evaluations.

Bryant-Davis et al. (2012) analyzed lesson plans to learn about the strengths and weaknesses in the co-teaching model. In the analysis of the lesson plans, the data indicated that co-teachers mainly used the one teach one assist model of co-teaching, which is consistent with findings by Magiera et al. (2005) and Mastropieri, McDuffe, and Scruggs (2007). The data did show; however, that other structures were utilized such as peer tutoring, group work, and peer grouping by 14% of the participants. More than half (65%), showed evidence overall that the co-teachers understood the accommodations/modifications that students needed and the necessity of aligning the curriculum in conjunction with their co-teachers. The accommodations/ modifications were mainly visual and audio: very low levels of kinesthetic or tactile accommodations/modifications; likewise, a very low level of technology tools and limited behavior intervention planning.

According to Bryant-Davis et al. (2012), what was notably absent in the data reviewed was planning for specific behavioral interventions such as self-monitoring or positive behavior targeted interventions: "During the data analysis, the absence of behavioral modifications was glaring" (p. 220)." Only 8% of the days showed evidence of planning for behavioral interventions. It has been shown that to maximize instructional time, planning for behavior is a necessity for minimizing distracting behavior (Bryant-Davis et al., 2012; Murawaski & Lochner, 2018). None of the lesson plans showed evidence of self-monitoring strategies. Behavior interventions noted were minimal mainly relying on changing seating and prompting students to stay on task and follow the rules/directions. Additionally, Bryant-Davis et al. (2012) found accommodations and modifications to be mainly visual and audio with minimal kinesthetic or tactile interventions, analogous to outcomes found by Murawaski and Swanson (2018).

Co-Teaching in the Era of Accountability

In the last century, the rights for children with a disability to receive an education in the general education setting (inclusion) has transformed from a fight from exclusion to one for full inclusion in the general education environment (Gordon, 2006; Kubicek, 1994; LaNear & Frattura, 2007; Lipsky & Gartner, 1996; Villa & Thousand, 2005). Rights for children with special needs have changed due to judicial interpretation and legislation by Congress (Gordon, 2006; LaNear & Frattura, 2007). Back in 1919, with the *Beattie v. Board of Education* (1919), the courts excluded a child with cerebral palsy from the general education classroom due to his physical ailments. Then in the late 1950s and 1960s after the *Brown v. Board of Education* (1954) ruling, the tide started turning towards students with special needs to have a right to education (LaNear & Frattura, 2007). In 1972, the *PARC v. Commonwealth of Pennsylvania* consent agreement was instrumental in the rights of children with disabilities to receive

education alongside their non-disabled peers. This decision led the way to the groundbreaking legislation, Education for All Handicapped Children Act (EAHCA, 1975). The EAHCA (1975) P.L. 94 -142 was changed and reauthorized as the Individuals with Disabilities Education Act (IDEA) in 1990 and was subsequently reauthorized and amended in 1997 and 2004. In 2004, IDEA was changed to the Individuals with Disabilities Education, and Improvement Act (IDEIA, 2004), and new strict accountability measures correlating IDEIA to NCLB were added. While IDEIA 2004 stated that all children with disabilities are expected to participate in state assessments, NCLB holds schools accountable for all students' results (Turnbull, Huerta, & Stowe, 2009). In 2004, the Least Restrictive Environment (LRE) principle was enhanced and it was new momentum behind the push for full inclusion (Fuchs et al., 2010; Turnbull et al., 2009; Villa & Thousand, 2005). Section 1400(c; 5) of IDEIA 2004 states:

> having high expectations for such children and ensuring their access to the general education curriculum in the regular classroom, to the maximum extent possible, in order to meet developmental goals and, to the maximum extent possible, that challenging expectations that have been established for all children; and be prepared to lead productive and independent adult lives, to the maximum extent possible. (Turnbull et al., 2009, p. 66)

To meet the requirements of IDEIA and NCLB, co-teaching has increased across the country as a means of providing instruction in the least restrictive environment (Bryant-Davis et al., 2012; Gordon, 2006; LaNear & Frattura, 2007). Co-teaching is a successful form of meeting the requirements of IDEIA and NCLB, raising academic achievement, and meeting the needs of students with disabilities in the least restrictive environment (Cook & Friend, 1995; Rea et al., 2002; Villa & Thousand, 2005).

According to the reauthorization of IDEIA 2004 and NCLB, school administrators are accountable for the achievement of all students, including those with disabilities (Turnbull et al., 2009). Due to the LRE section of IDEIA 2004, the rise of autism, critical lack of qualified special educators, decrease in educational funding, and push by influential advocacy groups, full inclusion is increasing across the nation, with and without necessary supports (Fuchs et al., 2010; Shanker, 1995; U. S. Department of Education, 2007; Villa & Thousand, 2005).

Research indicates that for co-teaching to be successful teachers need sufficient planning time, smaller class sizes, training, support, and materials (Burton & Pace, 2009; Fore et al., 2008; Kennedy, Shukla, & Fryxell, 1997; Klinger et al., 1998; Mastropieri et al., 2007; Vaughn et al., 1998; Villa & Thousand, 2005; Zigmond, 2003). However, in a research metasynthesis of qualitative research of 32 reports from 1958 to 2006, Scruggs, et al. (2007) reported that over two-thirds of the 10,560 teachers surveyed stated they lacked the necessary training, support (administrative, paraprofessionals, specialists), sufficient time, and/or materials to implement successful inclusion. Furthermore, Fuchs and Fuchs (1998) explained there is a "finite capacity" for the general education classroom to change (p. 309). Teachers in general education classrooms are overwhelmed with 20 to 45 students with a wide range of academic levels, little or no support in the classroom, high-stakes accountability, and insufficient time for planning (Praisner; 2003; Mastropieri et al., 2007, Vaughn et al., 1998). Additionally, very few general education teachers and their administrators have received adequate special education and inclusion training (Barnett & Monda-Amaya, 1998; Giametti-May, 2009; Hartfield, 2009; Shanks, 2009). Moreover, funding for special education has never been fully funded and educational funds are dwindling across the nation (Fuchs & Fuchs, 1998; Lipsky & Gartner, 1996; Pfieffer & Reddy, 1996).

Spanning the past 40 years, research evidence provides no compelling proof that one placement is better than the other for the social or academic progress of students with disabilities (Fuchs & Fuchs, 1998; Mastropieri et al., 2007; Zigmond, 2003). Thus far, research evidence on full inclusion versus special day placement is methodologically flawed, inconclusive, and limited (Fuchs et al., 2010; Hocutt, 1996; Mastropieri et al., 2007; Zigmond, 2003). Zigmond (2003) stated in her review of research:

> The accumulated evidence to date has produced only one unequivocal finding: Languishing in a general education class where nothing changes and no one pays you any attention is not as useful to students with mild/moderate learning or behavior disorders as is getting some help, although it does not seem to matter for students with mild mental retardation. (p. 196)

Summary

Overall, the research does indicate that full inclusion and co-teaching are effective for most students if implemented correctly with supports. However, it is not appropriate for all students with disabilities (Carlberg & Kavale, 1980; Fuchs et al., 2010; Mastropieri et al., 2007; Scruggs & Mastropieri, 2017; Zigmond, 2003). As one of the main principles of special education is an individualized education plan (IEP), which entails individualized instruction, "the very concept of 'one best place' contradicts this commitment to individualization" (Zigmond, 2003, p. 196). The approach of *one size fits all* goes against the very essence of the IDEIA (Fuchs et al., 2010; Shanker, 1995; Zigmond, 2003). Additionally, factors of successful co-teaching and inclusion programs are positive attitudes of teachers and administrators, collaborative planning time, necessary supports (specialists, paraprofessionals, technology),

materials, curriculum, and training (Burton & Pace, 2009; Fore et. al., 2008; Mastropieri et al., 2007; Villa & Thousand, 2005).

Moreover, research indicates that school administrators and teachers have positive attitudes towards inclusion and students with disabilities; however, they feel unable to fully support inclusion and students with disabilities due to inadequate funding, lack of supports (i.e.: specialists, materials, paraprofessionals, technology, effective curricula), insufficient planning time, and lack of training (Barnett & Monda-Amaya, 1998; Hartfield, 2008; Praisner, 2003; Shanks, 2009). Research indicates teachers' and principals' attitudes are more positive with professional experience and training in special education (Barnett & Monda-Amaya, 2008; Hartfield, 2009; Praisner, 2003). As discussed throughout this chapter, over the past 40 years, researchers, advocates, educators have been calling for general educators, paraprofessionals, and administrators to receive special education training (Austin, 2001; Mastropieri et al., 2007; Vaughn et al., 1998; Zigmond, 2003).

For nearly a century the rights of children with disabilities to receive free and appropriate education and the placement of this education have been under debate (Andrews, 2000; Fuchs & Fuchs, 1998; LaNear & Fraturra, 2007; Villa & Thousand, 2005; Zigmond, 2003). As such, advocates have fought for years for children with disabilities to receive specialized individualized instruction due to the fact the general education classroom may not be appropriate for all students all of the time (Fuchs & Fuchs, 1995; Fuchs et al., 2010; Zigmond, 2003). Furthermore, "the reality of general education suggests that the requisite attitudes, accommodations, and adaptations for students with disabilities are not yet in place" (Kavale & Forness, 2000, p. 290). Additionally, the courts have determined that the LRE requirement "does *not* mean that children with disabilities must be educated within the regular education

classroom—or, for that matter, within their home school" (Kubicek, 1994, p. 37). The effectiveness of one placement over another has more to do with what goes on within the classroom, (i.e.; the form and delivery of instruction), rather than where the instruction takes place (Fuchs et al., 2010; Shanker, 1995; Zigmond, 2003).

Due to the LRE component of IDEIA 2004, NCLB requirements, and research indicating increased achievement for students with disabilities in the general education environment, the inclusion of students with disabilities into the general education classroom and the use of the co-teaching model is increasing throughout the United States. Research indicates that in order for co-teaching to be successful administrators and general education teachers need to receive adequate training in special education, supports, and resources to implement successful integration and inclusion of students with disabilities in the general education setting (Ainscow, 2000; Burton & Pace, 2009; Cox, 2008; Praisner, 2003; Scruggs & Mastropieri, 2017). Furthermore, co-teaching has shown to be more successful when co-teachers have a choice in partners, special educators have content-area knowledge, and co-teachers have common planning time (Cox, 2008; Hang & Rabren, 2009; Scruggs & Mastropieri, 2017). In summary, co-teaching has shown to be an effective model of inclusion that can support the requirements of ESSA, NCLB, and IDEIA (Bryant-Davis et al., 2012; Friend, 2008; Villa et al., 1996).

Chapter 3: Research Design and Methodology

Restatement of Purpose

There are three purposes of this case study. The first purpose of this case study is to determine what structures and programs contribute to successful co-teaching. The second purpose is to explore the fundamental attitudes, practices, and relationships that contribute to successful co-teaching partnerships in purposefully selected high-performing urban high school setting in Southern California. The third purpose is to discover what supports, are needed to assist schools in improving their co-teaching practices. The school chosen is a California Honor Role school that scored above both district and state in English Language Arts, math, and science from the 2015-2016 school year through the 2017-2019 school year. This case study will provide data regarding the practices, relationships, attitudes, structures, and programs are factors in successful co-teaching, and what supports are needed to assist schools in improving their co-teaching practices.

The school chosen is California Honor Roll Star school that scored above both district and state in English language arts, math, and science in the 2015-2018 school years. The Star Honor Roll category of achievement stands for a school that is high performing and high poverty (Educational Results Partnership, ERP, 2019). By learning what factors contribute to the success of a high school co-teaching model, other schools, districts, and universities will be able to utilize the knowledge garnered to create targeted professional development, enhance teacher training programs, and replicate the success factors in other school settings.

Restatement of Research Questions

The following questions were asked at a purposefully selected high- performing urban high school in Southern California.

The research explored what co-teachers reported and the researcher observed regarding:

1. 1 What structures and programs do co-teachers believe contribute to the success of the co-teaching model?
2. What attitudes, behaviors, and relationships do co-teachers contribute to the success of the co-teaching model?
3. What supports are needed for successful co-teaching in a fully inclusive setting?

Research Design and Rationale

A single-case study design with a mixed-methods approach were utilized in this study. According to Scruggs, et al. (2007) "Qualitative research is generally appropriate for describing and providing insights about attitudes, perceptions, interactions, classroom structure, and behaviors" (p. 394). Creswell (2009) stated that "Case studies are a strategy of inquiry in which the researcher explores in depth a program, event, activity, process, or one or more individuals" (p. 13).

A single case study design was chosen to understand the unique characteristics of the attitudes, relationships, and practices that are undertaken in a co-teaching model in one high-performing high school in the Southern California. According to Yin (2014), there is a two-fold definition of a case study:

1. A case study is an empirical inquiry that
    - Investigates a contemporary phenomenon (the "case") in depth and within its real-world context, especially when
    - The boundaries between phenomenon and context may not be evident.
2. A case study inquiry

- Copes with technically distinctive situation in which there will be many or variables of interest than data points, and as one result
- Relies on multiple sources of evidence, with data needing to converge in a triangulating fashion, and as another result
- Benefits from the prior development of theoretical propositions to guide data collection and analysis. (pp. 16-17)

Three means of data collection were utilized. In the first phase a survey was sent via survey monkey to all the co-teaching partnerships at the school site that signed the consent letter to participate. The survey guided the selection of the participants for the second phase of classroom observations. The third phase will be one-on-one semi-structured interviews. Survey, observation, and interview data will be triangulated to ensure reliability and validity. Creswell (2009) stated, "In triangulation, researchers make use of multiple and different sources, methods, investigators, and theories to provide corroborating evidence" (p.208). Yin (2014) stated that better case studies incorporate a variety of data sources. According to Creswell (2009), "qualitative research is an approach for exploring and understanding the meaning individuals or groups ascribe to a social or human problem" (p. 4).

Target Population, Participants, Sample, and Sampling Procedures

Target population. The school was chosen was because it was a high-performing high school in an urban setting with an unique program regarding co-teaching. The school is in an urban school district responsible for the education of approximately 79,000 students annually. Of these 79,000 students, approximately 21% are second language learners, 68% are socioeconomically disadvantaged, and 12% are students with disabilities. The district serves a diverse population, which is approximately 55% Hispanic, 14% Caucasian, 14% African

American, 11% Asian, 2% Pacific Islander, less than 1% Native American/Alaskan Native, and 4% other (California Online Dashboard, 2018).

In 2015-2016, 2016-2017, and 2017-2018 school years, the high school studied scored above both the district and state in English Language Arts (ELA), math, and science (SARC, 2016, 2017, 2018). For the 2014-2015 school year, 67% and 68% of the 10th-grade students scored proficient or advanced in science. The district scored 50% and 48% proficient or advanced prospectively and the state 56% in 2014-2015 and 54% proficient and advanced in 2015-2016 (SARC, 2016). Furthermore, 61.5% of the students with disabilities scored proficient or advanced in science in 2015-2016. In 2015-2016, 63% of the students at the high school to be studied scored proficient in ELA, whereas the district scored 45%, and the state scored 48%, respectively. In 2015-2016, the school scored slightly above the district's 34%, with 36% meeting or exceeding State Standards and was on par with the State at 36% (SARC, 2016).

The high school is a School of Choice campus comprised of a student body of approximately 714 students in grades 9-12 in the 2018-2019 school year. A School of Choice is a high school that students all over the school district boundaries may choose to apply to for acceptance. Students do not have to be residents of the area in which the school is located. In this school's population, 46.8% of students are socioeconomically disadvantaged, 2% are English language learners, and 7.4% are students with disabilities (School Accountability Report Card, SARC, 2017, 2018). The racial-ethnic background of the student body is 10.5% African American, .3% American Indian, 7.3% Asian, 3.9% Filipino, 42.6% Hispanic, .7% Pacific Islander, 26.9% White, and 2.3% two or more races (California Online Dashboard, 2018).

The school chosen was a "Pilot" school in the district specifically to pilot co-teaching at the high school level while focusing on three distinct pathways linked to industries. Teachers

were hired with the contingency that they would be co-teaching. Another unique aspect of the co-teaching program is that the special educators follow a group of students for all 4 years of high school. Furthermore, the school focus is on collaboration and small group work around the three pathways.

Participants. The participants for this study are defined as single, dual or multiple subjects credentialed general education high school teachers, and special education credentialed high school teachers who have been co-teaching at a high performing high school for 3-5 years. Table 1 represents the demographic characteristics of the participants as well as their teaching experience, years of co-teaching, and subjects collaboratively taught during the case study.

Table 1

Participants' Demographics

Participant	Degree held/Credential	Years teaching/ Years teaching collaboratively	Subjects taught
Teacher 1	Master's/Education specialist	7/4	Science, art, English, government
Teacher 2	Master's/Education Specialist	8/7	Two math classes, foreign language, science, social science industry
Teacher 3	Master's/English	6/3	English
Teacher 4	Master's/Science	12/1	Science
Teacher 5	Bachelor's/Math	4/3	Math
Teacher 6	Master's/Math	17/5	Math
Teacher 7	Master's/World Languages	321/5	Foreign language
Teacher 8	Bachelor's/Science	19/4	Science
Teacher 9	Master's/Art	19/4	Visual arts
Teacher 10	Master's/Social Sciences	23/1	Social science industry related

Sample. According to the Fingertip Facts on Education (California Department of Education, 2019), for the 2018-2019 school year, there were 1,037 school districts and 1,323 public high schools and 281 independent charter high schools in the state of California. In 2017-2018, there was a total of 1,951,086 high school students enrolled in California public schools and independent public charter schools. The sample was chosen from the third-largest urban district in California, which served 74,681 students in the 2017-2018 school year. The school chosen is one of

the 14 high schools in the district and is a school of choice that has scored above the district and state average in statewide testing for 2015-2016, 2016-2017, and 2017-2018 school years (SARC, 2016, 2017, 2018).

Sampling procedures. This single case study utilized *purposeful sampling*. Purposeful sampling is where research uses their knowledge to choose a sampling that is based upon specific criteria. Mertens (2005) stated that for extreme or deviant case sampling, the criterion for selection of cases might be to choose individuals or sites that are unusual or special in some ways. For this case study participants were chosen from one of the highest performing high schools in one of the largest urban school districts in the Southern California using the California Accountability Model and School Dashboard. The California Accountability Model and School Dashboard is an online system that provides information and data regarding schools in California that meet diverse students' needs by a variety of measures. Measures include state testing, attendance, graduation rate, dropout rate, and suspension rate.

This design format began with the quantitative phase and was followed by the qualitative phase. The results of the quantitative phase guided the selection of interview protocols and selection of participants for the qualitative phase (Creswell, 2009; Creswell, Plano Clark, Gutmann & Hanson, 2003; Mertens, 2005). The quantitative phase used a survey that was sent by email to all co-teaching staff at the school site. The qualitative phase consisted of classroom observations followed by semi-structured one-on-one interviews of co-teaching teams.

Setting

The setting is one medium-sized school in a large public non-charter urban school district in the Southern California. The school site studied had three special educators, two with math expertise and one with a single-subject English credential that was at the school since the first year. For the

past 2 years there were three special educators, however now there are only two special education co-teachers. Both of the current special education teachers have expertise in mathematics. The special education teacher that left last school year was the lead teacher and was also credentialed in English. Each co-teacher teaches five separate classes including a credit recovery class. Another unique factor regarding the co-teaching program is that the special educators stay with the same group of students for all 4 years.

Co-teaching teams are chosen by grade level and the special educator's caseload. Each special educator starts with a group of students and follows them for all 4 school years. For the 2019-2020 school year, one special educator has the ninth and 12th-grade students on his caseload, and the other has the 10th and 11th graders. The classrooms they co-teach in are based upon their caseload and the academic minutes that are needed to be met for each student. The classrooms that have more students with IEPs the special education teachers are co-teaching/collaborating in the classrooms. The special education assists are in the other classrooms that have lower numbers of special education students.

The school was built with the pathways in mind. The buildings are set up with each pathway program set of classrooms together with a carpeted common area in the middle of the of the classrooms. This area has tables, chairs, and seating areas for students and teacher to congregate and mingle. There is also a higher long table that has electrical outlets. Every classroom is equipped a large screen TV attached to the wall, screens that drop down and retract from the ceiling, document readers, desktop for the teacher, Chromebooks, and technology specific to the content area.

Human Subject Considerations

This study was approved by both Pepperdine University's Graduate and Professional Institutional Review Board (IRB) and the District IRB (Appendix D and Appendix E respectively). There were a total of 10 participants in this study for both the quantitative phase and qualitative phases. Participants were credentialed single-subject, dual credentialed (single-subject and special education), or credentialed special educators with content area expertise.

The researcher developed a consent letter per Pepperdine's IRB guidelines. The consent letter was approved by Pepperdine University IRB and given to each participant to sign (Appendix F). The form indicates that (a) the study concerns the fundamental attitudes, relationships, and practices regarding collaborative teaching, (b) they are not required to participate, and (c) if they do participate, they may withdraw at any time without penalty.

Confidentiality

Participant data will be kept confidential; no information will be connected to the participants. Each participant will be given a coded number so that the identity of the participant will be kept confidential. Access to the research will be limited. The investigator will protect the research with passwords and stored in a locked cabinet and a password-protected file on the researchers' computer.

Instrumentation and Content Validity

Survey. The researcher used an adapted version of the Perceptions of Co-Teaching Survey ("PCTS") piloted and developed by Austin (2001) in consultation with Fennick (1995). The survey (see Appendix A) has two components: Part I contains questions regarding teacher participants' demographic information, and Part II investigates four specific areas regarding teacher's perceptions about co-teaching and collaboration. The four specific areas: (a) Teacher Preparation for

Collaborative Teacher, (b) Recommended Collaborative Practices, (c) Co-Teacher Perceptions of Current Experience, and (d) School-Based Supports That Facilitate Collaborative Teaching.

Additional resources that Austin (2001) used to select survey items were (a) "Collaborative Team Performance Survey and Part II: Collaborations of Co-Teachers" (Bixler, 1998); (b) Survey of Barriers to Collaboration Analysis of General and Special Education Roles (Lackaye, 1997); (c) "Attitudes and Attributes of General Education Teachers Identified as Effective Inclusionists" (Olson, Chalmers, & Hoover, 1997); (d) "Essential Elements for Successful Collaboration" (Gaut, 1994); and (e) "Development of a Scale to Measure Attitudes Toward Inclusive Education" (Wilczenski, 1995).

Austin (2001) first sent the survey out to nine field experts to review the tool for its clarity, validity, and relevance. The survey was modified using recommendations from field experts and in the fall of 1998, a pilot study was conducted. Austin used the results of the pilot student to hone further the study to increase its clarity, validity, and relevance.

The participants consisted of 139 collaborative teachers from nine school districts in northern New Jersey who were co-teachers (general and special education teachers) in Kindergarten through 12th grade. All teachers who participated in the study had been collaborating for at least one semester. The districts were considered middle income and located in one county of northern New Jersey. The average class size was 27-31 students with a student to teacher ratio of 12.0 to 13.7 (Austin, 2001).

Part I has eight demographic questions, and Part II consists of four specific areas. Part I of the survey will be modified to fit the study. For example, question 1 is not relevant for this study because it asks if the teachers teach elementary, middle, or high school. All participants in this study are high school teachers. Question 2 asks about the content areas. Reading will be removed,

and Advanced Placement will be added. Question 3 will be adapted to include certification or expertise of special educators in single subject areas.

Part II is set up with 5-point Likert scale questions ranging from 1- strongly agree to 5- strongly disagree. The first area is Co-Teacher Perceptions of Current Experience and has five questions and a section for comments. The second area has four questions regarding Recommended Collaborative Practices with an area for comments on other collaborative practices you find effective. The third area has seven questions related to Teacher Preparation for Collaborative Teaching and an area for written comments. The fourth and final area has six questions regarding School-Based Supports that facilitate Collaborative Teaching with an area for comments.

The Perceptions of Co-Teaching Survey was further validated in a study conducted by Campbell and Jeters-Iles in 2017. In their study there was a total of 64 participants, 31 special education teachers, and 33 general education teacher grades in 4 secondary schools (Campbell & Jeters-Iles, 2017). Campbell and Jeter-Iles (2017) adapted the survey into an electronic version via survey monkey. The response rate was 55.6% for the three middle schools and 46% for the one high school with an equal distribution of responses from general and special educators (52.4%). Teacher perceptions were generally positive similar to the results in Austin (2001). The survey was converted into an electronic survey that participants can access via Survey Monkey.

Observation. The CTSS Co-Teaching Core Competencies Checklist developed by Murawski and Lochner (2018) was used to conduct the classroom observations. In their book, *Beyond Co-Teaching Basics A Data-Driven, No-Fail Model For Continuous Improvement,* Murawski and Lochner (2018) developed an observation checklist of the 22 most critical competencies for successful co-teaching from a list of 120 competencies for co-teaching and named them the Core Competencies for Co-Teaching. Murawski and Lochner described how the Co-

Teaching Core Competency Framework is divided into domains, strands, competencies, and core competencies. The four domains are (a) the Learner and Learning, (b) The Task at Hand, (c) Instructional Practices, and (d) Professional Responsibilities. In each of these four domains there are 11 competencies strands. In Learner and Learner, there are two strands: learning differences and classroom environment. In domain 2, The Task at Hand, there are three strands: content knowledge, compliance issues, and co-teaching construct. Domain 3, Instructional Practices, has 3 strands: assessment, planning, and instruction. Domain number 4, Professional Responsibilities also has three strands: (a) communication, collaboration, and problem-solving; (b) families and community; (c) professional practices and ethics.

Murawaski and Lochner (2018) utilized content validity, recent and relevant research on co-teaching (Murawaski & Dieker, 2008; Scrugs et al., 2007) and co-teaching practitioner literature to determine the 22 core competencies. These 22 core competencies encompass the 11 strands in the four domains and organized into an observation tool named the CTSS Core-Competencies Checklist. The checklist is available both in paper and electronically. The investigator used the electronic version for data collection.

Interviews. Interview questions were developed using a variety of resources. Individuals with similar characteristics of those being studied and experts in the field of special education and co-teaching reviewed the interview questions for clarity, comprehensibility, and alignment with research questions (See Table 2).

Table 2

Synthesis of Research Questions, Interview Questions, and Researchers

Research Question	Interview Questions	Researchers
What structures and programs contribute to the success of the co-teaching model within a fully inclusive setting?	Special Education Teachers- Do you have a credential in a single subject or single subject expertise? If so, which area(s)? Where you told you would be co-teaching when hired? Roles &Responsibilities: Who is responsible for the following procedural elements of the classroom? a. Grading b. Student requests c. Behaviors modifications d. Behavior issues e. Contacting parents f. Writing referrals g. Providing lesson/test accommodations/ modifications h. Arranging seating chart/assigning groups i. Creating lessons/assignments Who is responsible for the instruction in your classroom? Equal responsibility? a. Strategically planned? b. Did you plan together or collaborate on the lesson? c. Does this work? d. Is there room for improvement? How are lessons structured? a. How often does whole group instruction take place? b. How often does small group instruction take place? c. Any pullout? What types of student grouping do you use? a. How successful were they? How do you meet the individualized needs of your students? a. How do you differentiate lessons? b. How do you collaborate about lesson differentiation? Which, if any, specific program or specialized curriculums have you used or observed? What curriculum do you use? How does the curriculum enhance co-teaching and/or small group instruction?	Austin, V. (2001). Perceptions in co-teaching. *Remedial and Special Education, 22(4),* 245-255. Cox, J. (1996). *Your opinion please: How to build the best questionnaires in the field of education.* Thousand Oaks, CA: Corwin. Friend, M., Cook, L., Hurley, Chamberlain, D., & Shamberger, C. (2010). Co-teaching: An illustration of the complexity of collaboration in Special Education. *Journal Of Educational and Psychological Consultation, 20*(9), 9-27. Murawaski, W. W. (2009). *Collaborative teaching in secondary schools: Making the co-teaching marriage work!* Thousand Oaks, CA: Corwin. Magiera, K., Smith, C., Zigmond, N., & Gerbauer, K. (2005). Co-teaching in middle school classrooms under routine conditions: Does the instructional experience differ for students with disabilities in co-taught and solo-taught classes? *Learning Disabilities Research and Practice, 20*(2), 79-85. Zigmond, N. (1995). An exploration of the meaning and practice of special education in the context of full inclusion of students with learning disabilities. *The Journal of Special Education, 29*(2), 109-115.

(continued)

Research Question	Interview Questions	Researchers
What attitudes, behaviors, and relationships contribute to the success of the co-teaching model?	How many co-teachers do you work with during the school day? a. Same subject area? b. Describe experiences (benefits/barriers) teaching with more than one co-teacher? What aspects of the curriculum are you most comfortable teaching? a. Least comfortable teaching? b. Explain What are the most important aspects for a successful co-teaching relationship? How important is trust and respect in a co-teaching partnership? Explain How does your co-teaching partnership work in your classroom? (gen ed) What are some of the differences between the different classrooms you co-teach in? (special ed) What are barriers to a successful co-teaching relationship? Have you have issues with co-teachers? If so, how did you resolve them?	Vaughn, S., & Schumm, J. S. (1995). Responsible inclusion for students with learning disabilities. *Journal of Learning Disabilities, 28* 264-270. Magiera, K., Smith, C., Zigmond, N., & Gerbauer, K. (2005). Benefits of co-teaching in secondary mathematics classes. *Council for Exceptional Children, 37*(3), 20-24. Gately, S. E., & Gately, F. J. (2003). Understanding co-teaching components. *Teaching Exceptional Children, 33*(4), 40-47. Noonan, M. J., McCormick, L., & Heck, R.H., (2003). The co-teacher relationship scale: Applications for professional development. *Education and Training in Developmental Disabilities, 38*(1), 113-120. Murwaski, W. W., & Dieker, L. (2008). 50 ways to keep your co-teachers: Strategies for before, during, and after co-teaching. *Teaching Exceptional Children, 40*(4), 40-48. Hang, Q., & Rabren, K. (2009). An examination of co-teaching perspectives and efficacy indicators. *Remedial and Special Education, 30*(5), 259-268. Idol, L. (2006). Towards inclusion of special education students in general education. A program evaluation of eight schools. *Remedial and Special Education, 27*(2), 77-94.

(continued)

Research Question	Interview Questions	Researchers
What are supports needed for successful co-teaching in a fully inclusive setting?	To enhance your co-teaching program, what expertise or training do you think would be useful? a. Professional development topics? How have the co-teaching in-services or professional development/trainings helped you? What supports have helped you in co-teaching/collaboration? What additional supports do you feel are needed to make co-teaching more successful? a. Administrative support b. Planning time c. Training d. Summer planning time Would you prefer daily, weekly, bi-weekly, or monthly planning time?	Idol, L. (2006). Towards inclusion of special education students in general education. A program evaluation of eight schools. *Remedial and Special Education, 27(2),* 77-94. Murawski, L., & Lochner, W. (2017) *Beyond Co-Teaching Basics A data-Driven No-Fail Model for Continuous Improvement.* Alexandria, VA: ACSD. Shaffer, L., & Thomas-Brown, K. (2015). Enhancing teacher competency through co-teaching and embedded professional development. *Journal of Education and Training Studies, 3*(3),117-125. Scruggs, T. E., Mastropieri, M. A., & McDuffie, K.A. (2007). Co-teaching in inclusive classrooms: A metasynthesis of qualitative research. *Exceptional Children, 73*(4), 392-416.

Data Collection Methods

Three means of data collection were used in this study: surveys, observations, and interviews:

Survey. Using Survey Monkey, a survey was sent via e-mail to the 10 general education teachers and two special education co-teachers who currently co-teach at the school being studied.

Observations. Teaching teams were selected to be observed based on classrooms where co-teaching/collaboration was taking place. Originally there were three special education co-teachers; however this year there are only two, hence limiting the number of classrooms for observation. Observations were conducted after the survey portion of the study. The school is on a block schedule with eight periods, four 88-minute periods a day. Even number classes one day

and odd number the next, therefore each class is every other day. Observations were 88 minutes for each co-teaching team. Observations took place beginning October 21. The observations were conducted over a three week period. After the observation portion of the study, teachers from the co-teaching teams were interviewed individually for 20-60 minutes per co-teaching partner.

Interviews. Ten one-one semi-structured interviews were conducted over two weeks beginning on November 4. The interviews were digitally recorded to ensure accuracy. A digital recorder was used to ensure thorough documentation of the participants' responses allowing the researcher to maintain eye contact with participants, provide encouraging gestures such as nodding and smiling and give undivided attention to the participants.

The researcher purposely interviewed each participant in their classroom where they would feel the most comfortable. Interviews were scheduled during their conference periods to not take away from instruction or add onto their school day. One teacher asked to meet after school so it would not conflict with his time with students. The researcher first went over the purpose of the case study and reminded participants that they could opt-out at any time. The researcher asked permission of the participants to use a digital recorder for the interview, explaining that a recording device allowed the researcher to give full attention to the responses and not distracted by taking notes.

The interview questions (Table 2) begin with basic yes or no demographic information move into classroom responsibilities and then into more open-ended questions to allow for a more fluid answer from the participants. The questions were developed to assist in answering the researcher's three research questions. "The interviews will be guided conversations rather than structured queries. In other words, although you will be pursuing a consistent line of

inquiry, your actual stream of questions in a case study interview is likely to be fluid rather than rigid "(Yin, 2009, p. 106)

Reflective journaling was used after each interview to record personal feelings and thoughts to assist in *separating* any personal interpretations or opinions that may influence data analysis.

The researcher and co-teachers used their coded numbers during the interviews, no names were used in the recordings of the interviews. Recordings of the interviews were sent to a third party, a web-based company called rev.com (www.rev.com) for transcription. Copies of the transcriptions were sent to participants to review and edit for accuracy or responses. Data (recordings, notes, reflective journaling, transcripts) will be kept on a flash drive and store in a locked filing cabinet to which only the researcher has a key. After 5 years, all data will be destroyed.

Data Analysis and Interpretation

Survey Monkey was utilized for the survey portion of the study. Survey Monkey has a data analysis function that will be used by the researcher. The data from Survey Monkey was gathered and downloaded into a Microsoft Excel file. The data includes descriptive statistics for each of the Likert-scale items included in the survey. Quantitative data was analyzed and coded based upon demographics and characteristics such as (a) training, (b) co-planning time, (c) responsibilities, and (d) experience.

The online version of the CTSS Core Competencies Observation Checklist, which has a data analysis tool. Observational data was downloaded into an Excel file. The data was analyzed and coded based upon demographics and characteristics such as (a) co-teacher parity,

(b) both teachers assist and work with all students, (c) universal design, (d) use of technology, and (e) evidence of co-planning and communication between teachers.

The transcribed interview data were uploaded into the Atlas ti8 software for coding. Interview data was carefully analyzed for emerging patterns and coded. At first there were 304 codes, then through a more narrow focus they were merged or deleted into 84 succinct codes that related to the three research questions. Then emerging themes were determined and color-coded. Tables were developed using the Atlas ti 8 software showing the frequency of the various codes and themes. The survey, observation, and interview data were then triangulated.

Table 2 is a synthesis of research questions, interview questions, and researchers. The table delineates the interview questions that assisted with answering each of the research questions and the research that was used to determine the interview questions.

Summary

Chapter 3 explains the research design and methodology that was used in the study. The chapter restates the purpose of the study and research questions. The research design and the rationale for the design are discussed. The sampling method, setting, and plans for the treatment of human subjects are outlined in detail. Confidentiality is considered along with the delineation of the data collection methods. In conclusion, instrumentation and data analysis and interpretation are discussed.

Chapter 4: Results

There are two main purposes in this case study. The primary purpose of this case study is to explore the fundamental attitudes, practices, structures, and relationships that contribute to successful co-teaching partnerships in purposefully selected high-performing urban high school setting in the Southern California. The secondary purpose is to determine what professional developments and/or training is needed to assist schools in improving their co-teaching practices. This case study provides data regarding the practices, relationships, supports, structures, and attitudes that are factors in successful co-teaching and what professional development and/or trainings are needed in order to improve the practice of co-teaching. In this chapter, the research findings based on the data collected are discussed.

Research Questions

The following questions were asked at a purposefully selected high-performing urban high school in Southern California.

What did co-teachers report and what did the researcher observe regarding:

1. What structures and programs do co-teachers believe contribute to the success of the co-teaching model?
2. What attitudes, behaviors, and relationships do co-teachers contribute to the success of the co-teaching model?
3. What supports are needed for successful co-teaching in a fully inclusive setting?

Research Design

A single-case study design and a mixed-methods approach were utilized in this study. Three methods of data collection were used: (a) survey, (b) observation, and (c) interviews. The Perceptions of Co-Teaching Survey (PCTS) by Vance Austin (2001) was adapted to an online

version using Survey Monkey. An email with the link to the survey was sent to all co-teachers who are currently co-teaching at the purposefully selected school. The survey has two parts: The first part is yes/no questions and check the boxes regarding basic demographic information such as how many years have you taught and what do you teach collaboratively; the second part has four sections:

- Perceptions of current experience
- Recommended collaborative practices
    - Teachers' belief/value of the practice
    - Whether teachers currently employ the practice
- Teacher preparation for collaborative teaching and if they found it to be useful
- School-based supports that facilitate collaborative teaching
    - Teachers' belief/value of the statement
    - Whether they currently have access to or receive the school-based services

Additionally, there was space at the end of each section where participants could write in comments.

The classroom observations were conducted over three weeks, beginning on October 21, 2019. The researcher was introduced to the special educators by the principal of the school site. The special educators then introduced the researcher to all the general education teachers that they taught with collaboratively that agreed to participate in the study. The researcher used the Co-teaching Competencies Observation Checklist (Murawaski & Lochner, 2018). The checklist has three sections: (a) look for items, (b) ask for items, and (c) and listen for items. With the permission and suggestion of Murawaski and Lochner (2018), the researcher adapted the study and used only the "look for" and "listen for" portions of the checklist. Murawaski and Lochner

have adapted the checklist so schools and researchers can use the tool on an IPad in a school setting. Additionally, the online tool can be used to write reports and analyze the data. There is also paper version that is available online to download and in their publications. Eight collaborative classrooms were observed.

Interviews were conducted over two weeks beginning November 4, 2019. The interviews took place in the teachers' classrooms to assist in putting the teachers at ease. The interviews were conducted one-on-one and lasted from 20 to 60 minutes per interview. The interviews were conducted after the observations. This helped with the teachers feeling more at ease during the interview process. During the interviews additional follow-up questions were asked to clarify answers and to gather more in-depth information to answer the research questions.

Findings

The findings were organized by the three research questions. The research questions will be reviewed below in order of each research question. The findings were presented by the quantitative results of the Perceptions of Co-Teaching Survey (Austin, 2001) data, then by the observations data from the results of the Co-teaching Core Competencies Observation Checklist (Murawaski & Lochner,2018), concluding with the primary qualitative data from the 10 one-on-one semi-structured interviews with each co-teacher. The results from the survey, observations, and interviews were then triangulated.

Research question one (RQ1). *What structures and programs contribute to the success of the co-teaching model within a fully inclusive setting?* Data collection to answer RQ1 included six questions from the PCTS, eight items from the Co-Teaching Core Competencies Observation Checklist, and five interview questions. The first section analyzed the PCTS responses; the

second section analyzed data from the observations, followed by the primary data from the interviews. The data for each research question was then triangulated.

PCTS results. There were seven questions used from the PCTS used to analyze RQ1: five through 10 and 23. Question 5 pertains to co-teachers perceptions of their current experience. Questions numbered 6 through 10 relate to recommended collaborative practices. Question 23 relates to school-based supports that facilitate collaborative teaching. In this section, each bar graph in Figures 1 through Table 17 below, displays, both the special education co-teachers and the general education co-teachers' responses in percentages of the total number surveyed of special educators and general educators surveyed. Two special educators and eight general educators participated in the survey portion of the study. Special education teachers' responses are in blue, and general education teachers' responses are in green.

Question 5 pertains to co-teachers' perception of their current experience. Question 5 asked, "My partner and I solicit each other's feedback and benefit from it" (Figure 1). All but one co-teacher, 90%, felt that they solicited feedback from each other and that they benefited from it. Fifty percent strongly agreed, and 40% agreed. There was only one outlier that strongly disagreed. Both special educators strongly agreed that they solicit feedback from their general educators and benefit from it. The one general education teacher who strongly disagreed has only been co-teaching for 1 year and in a content area that is not an area of expertise for either of the special education teachers.

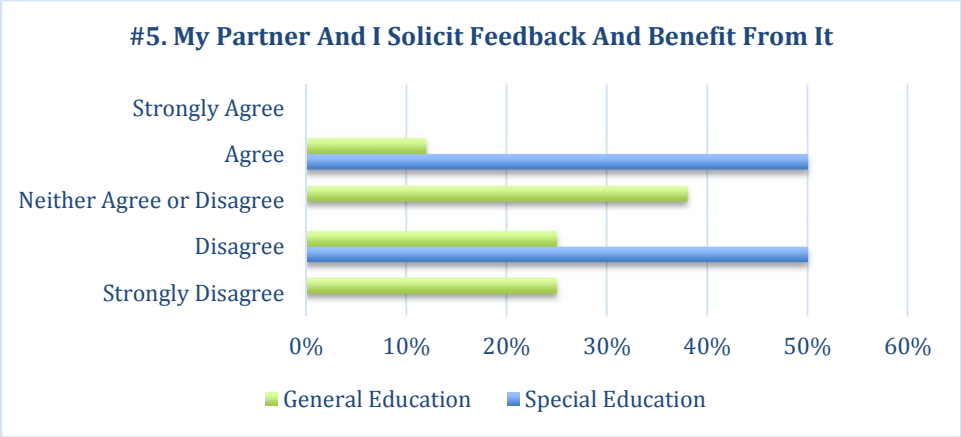

Figure 1. PCTS question #5: My partner and I solicit feedback from each other and benefit from it.

Questions numbered 6 through 10 of the PCTS seek to clarify collaborative practices in a co-teaching partnership and program. These four questions directly correlate with RQ1 and RQ2. RQ1 refers to what structures and programs are in place for successful co-teaching. RQ2 pertains to attitudes, relationships, and behaviors in a co-teaching partnership. Collaborative practices, such as (a) meeting daily to plan lessons, (b) sharing classroom management responsibilities, (c) sharing instruction, (d) offering feedback, and (e) establishing maintaining specific areas of responsibility are significant structural elements in a co-teaching program. Notably, the data are primarily positive results regarding collaborative practices.

Question 6a (Figure 2) asked what teachers' beliefs are or the value they place on meeting daily to plan lesson and whether or not it is needed for successful co-teaching. The second part of the question, number 6b (Figure 3), dealt with if the co-teacher actually employs the practice of planning daily with their co-teaching partner. The two special educators had two different sets of opinions and practices whether they valued and employed daily lesson planning. One special educator replied they "agreed" that it was necessary and answered that he employs the practice. Likewise the special educator who "disagreed" replied that he also did not employ the practice of meeting daily to plan lessons. The special educators' viewpoints paralleled the

data from general educators. The special educator who disagreed with meeting daily, corresponding co-teachers, also answered that they "disagreed" and "strongly disagreed." Whereas the other special educators' partner teachers answered "agreed" and "neither agreed nor disagreed."

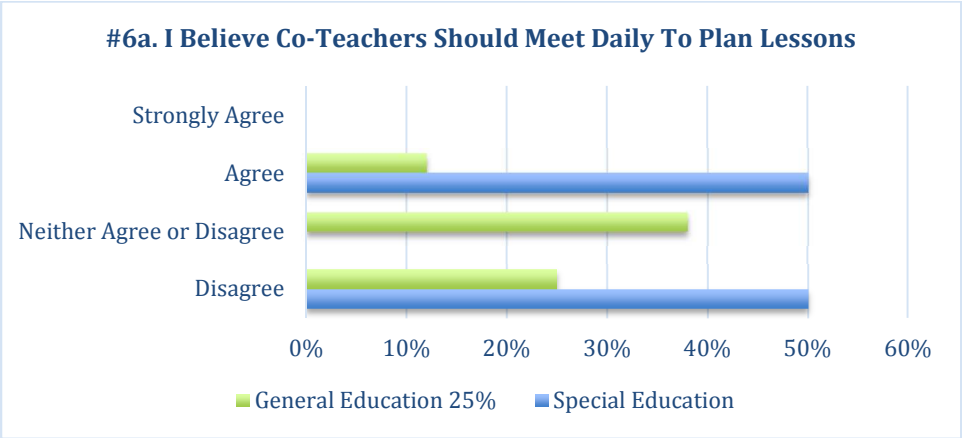

Figure 2. PCTS question #6a: I believe co-teachers should meet daily to plan lessons.

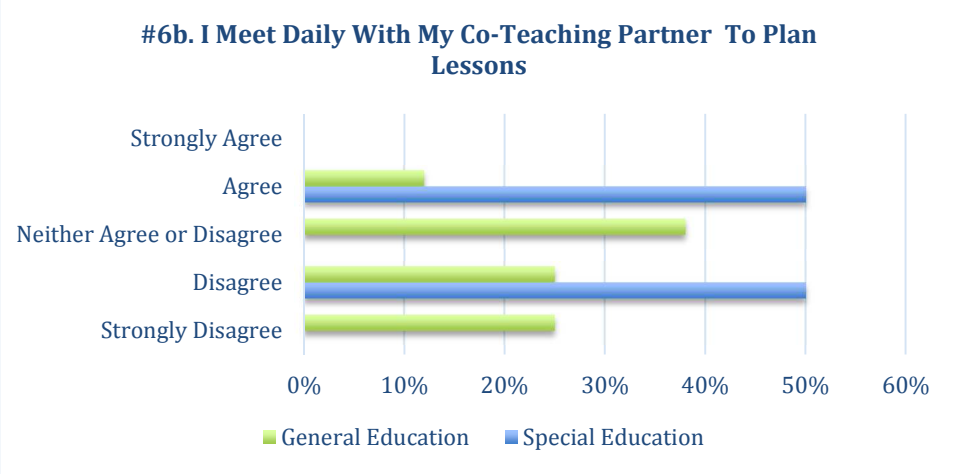

Figure 3. PCTS question #6b: I meet daily with my co-teacher to plan lessons.

Questions numbered 7a (Figure 4) and 7b (Figure 5) relate to whether co-teachers believe that they should share classroom management responsibilities and whether they employ the practice. Classroom responsibilities refer to things such as classroom management, seating arrangements, lesson planning, creating assessments, grading, contacting parents, and writing

referrals. Both special educators, 30% of the teachers surveyed, "strongly agree" that co-teaching partners should share responsibilities. They answered that they "strongly agree" that they currently share classroom responsibilities with their co-teaching partner. However, in practice one special educator only "agreed" instead of "strongly agreed." The general education co-teaching partners' answers ranged from 20% answering that they "neither agree" or "disagree," 50% agreed, and 10% strongly agreed that classroom management responsibilities should be shared. The general educators' employment of sharing classroom management responsibilities matched their beliefs except for one general educator who said they "agreed" and answered "neither agreed or disagreed" regarding whether they employ sharing classroom management responsibilities. Overall, 70% of the co-teachers "agreed" and "strongly agreed" that they share classroom management responsibilities.

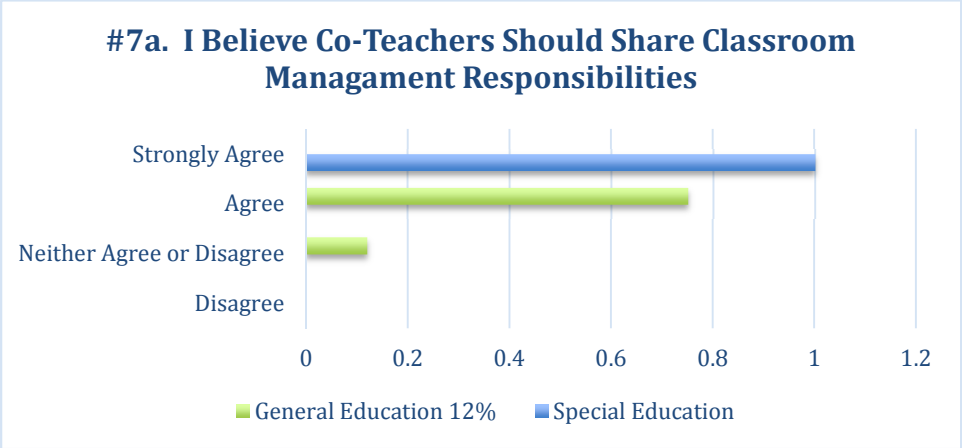

Figure 4. PCTS question #7a: I believe co-teachers should share classroom management responsibilities.

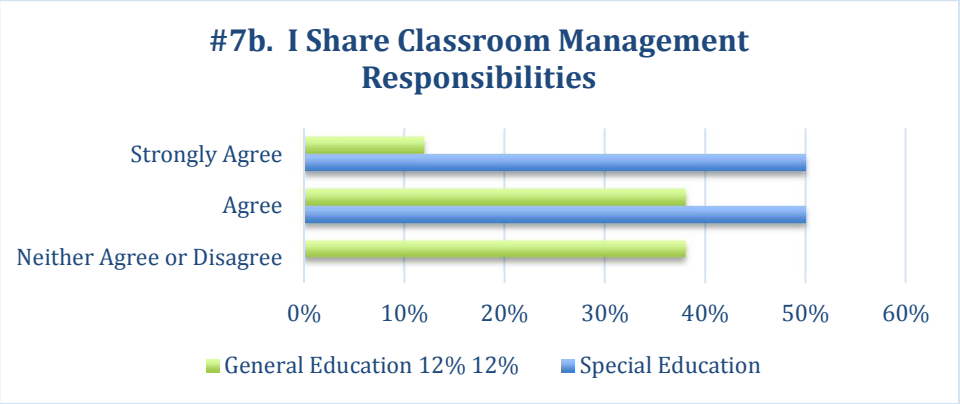

Figure 5. PCTS question #7b: I share classroom management responsibilities.

Sharing classroom instruction is a crucial element in a co-teaching relationship. The data from the PCTS questions numbered 8a (Figure 6) and 8b (Figure 7) demonstrates that 60% of the co-teachers surveyed believe they should share classroom instruction and 10%, one special educator, "strongly agreed." One educator, 10%, "neither agreed or disagreed" and 20% "disagreed" that they should share classroom instruction. The data shows that 50% of the co-teachers share classroom instruction, 10% "strongly agreed," and 40% "agreed" (Table 10). Of the teachers surveyed, 30% "neither agreed nor disagreed" and 20% "disagreed" that they shared classroom instruction.

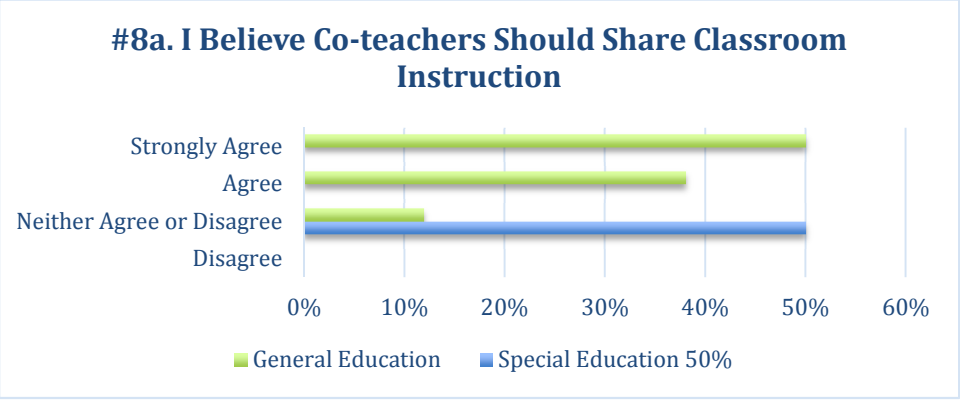

Figure 6. PCTS question #8a: I believe co-teachers should share classroom instruction.

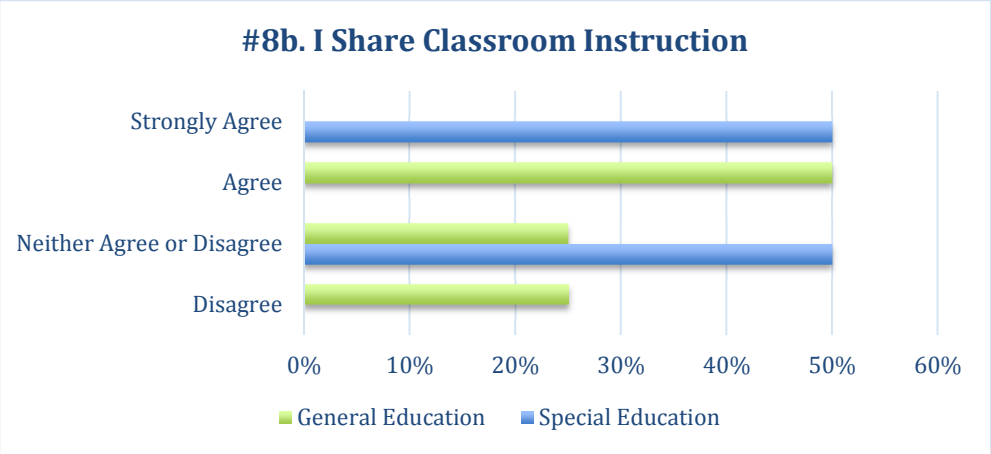

Figure 7. PCTS question #8b: I share classroom instruction.

The review of the literature indicates that offering feedback is a practice that has been shown to improve teaching practices. Questions number 9a (Figure 8) and 9b (Figure 9) seek to clarify if co-teachers believe/value regularly offering feedback to each other. Of the teachers surveyed, 10% "strongly agree" and 70% of the co-teachers "agree;" both special educators and six general educators, that co-teachers should regularly offer feedback to each other. Another 20% "neither disagreed or agreed" that they should regularly offer feedback. The data shows that 20% "strongly agree" that they regularly offer feedback, and 60% "agree." Furthermore, 10% percent "neither agree nor disagree" and 10% "strongly disagree" that they regularly offer feedback.

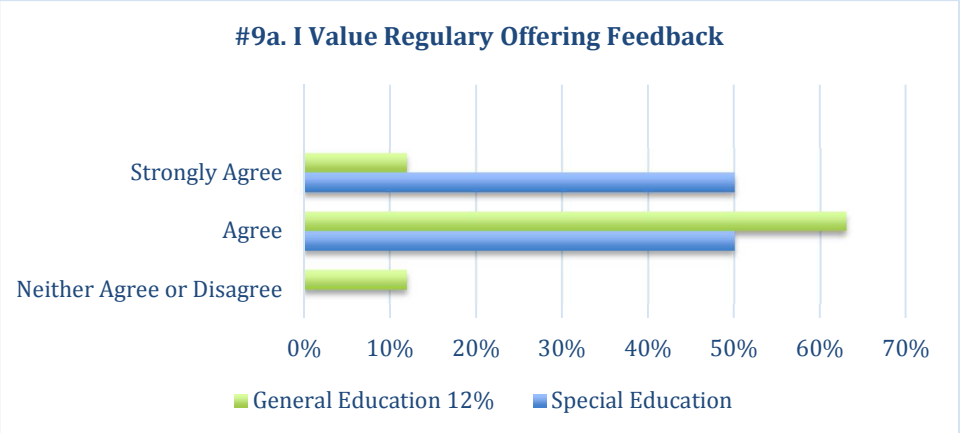

Figure 8. PCTS question #9a: I believe co-teachers should regularly offer feedback.

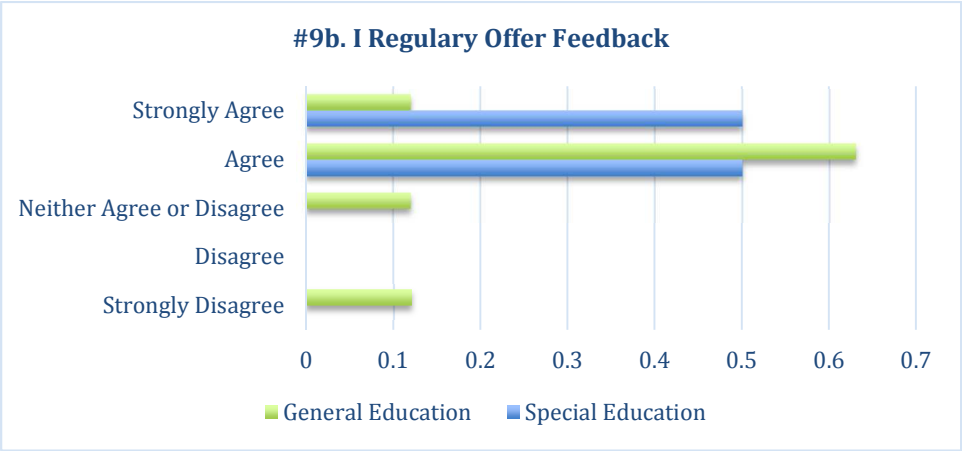

Figure 9. PCTS question #9b: My co-teacher and I regularly offer feedback.

Questions numbered 10a (Figure 10) and 10b (Figure 11) seek to clarify if co-teachers should establish and maintain specific areas of responsibility. Of the co-teachers surveyed, 60%, one special educator and five general educators, believed they should establish and maintain specific areas in responsibility. Thirty percent neither agreed or disagreed, and 10% "strongly disagreed." Regarding if co-teachers employed the practice of establishing and maintain specific areas of responsibility in their classrooms 70% "agreed." One special educator moved from "neither agree nor disagree" that she believed they should establish and maintain specific areas of responsibility to agreeing that she employed in the classroom. One special educator answered that he "neither agreed or disagreed" in valuing establishing and maintain specific areas of responsibility to "disagree" in employing the practice.

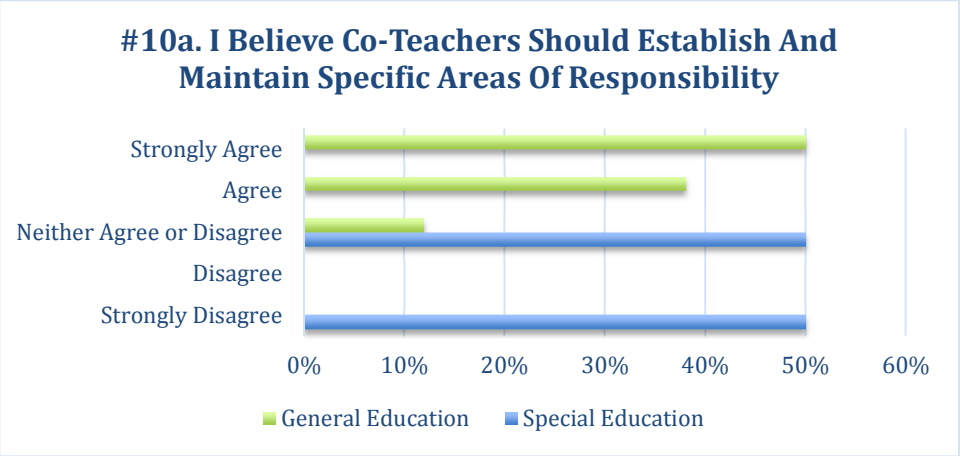

Figure 10. PCTS question #10a: I believe co-teachers should establish and maintain specific areas of responsibility.

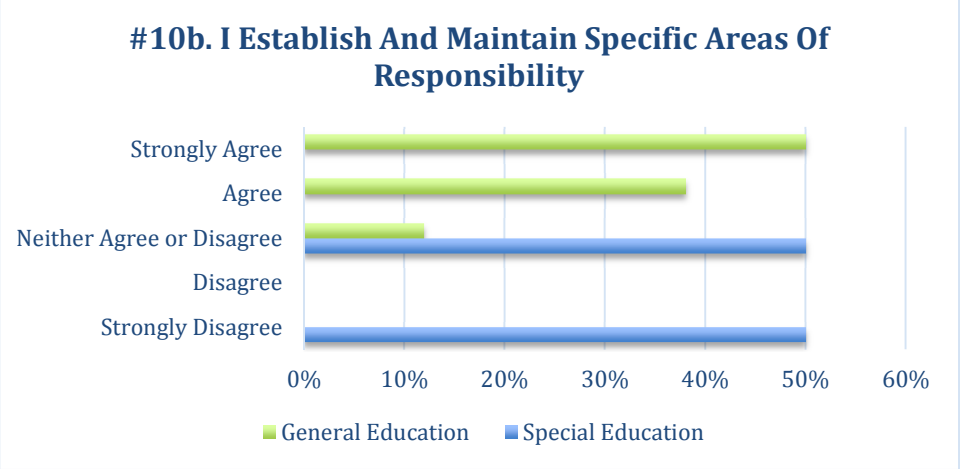

Figure 11. PCTS question #10b: I establish and maintain specific areas of responsibility with my co-teacher.

Being able to modify classroom configurations, such as seating and classroom set up is an important aspect of the structure of the classroom. Question 23a asked whether teachers valued opportunities to modify the classroom configurations. Of the co-teachers surveyed, 30%, both special educators and general educator, valued the ability to modify classroom configurations (Figure 12). 30% of the co-teachers felt it was "somewhat useful," 30% felt it was of "limited use" and 10%, one teacher, did not know if they valued opportunities to modify the classroom configuration. Similarly, both special educators responded that they have

"plentiful access" to modify classroom configurations (Figure 13). Interestingly, only two general educators responded that they have "plentiful access." Two general educators, 20% replied that they had "some access" and 20% replied that they had "limited access" to modifying classroom configurations. One teacher replied she did "no access" and this is due to her room having fixed tables that cannot be moved. One teacher. 10% stated that they "did not know" if they had access to modify their classroom configuration.

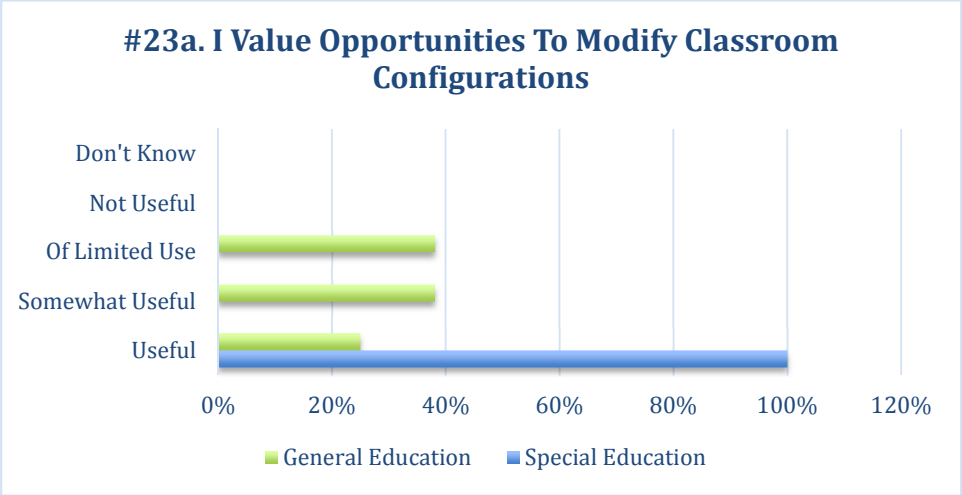

Figure 12. PCTS question #23a: I value opportunities to modify the classroom configuration.

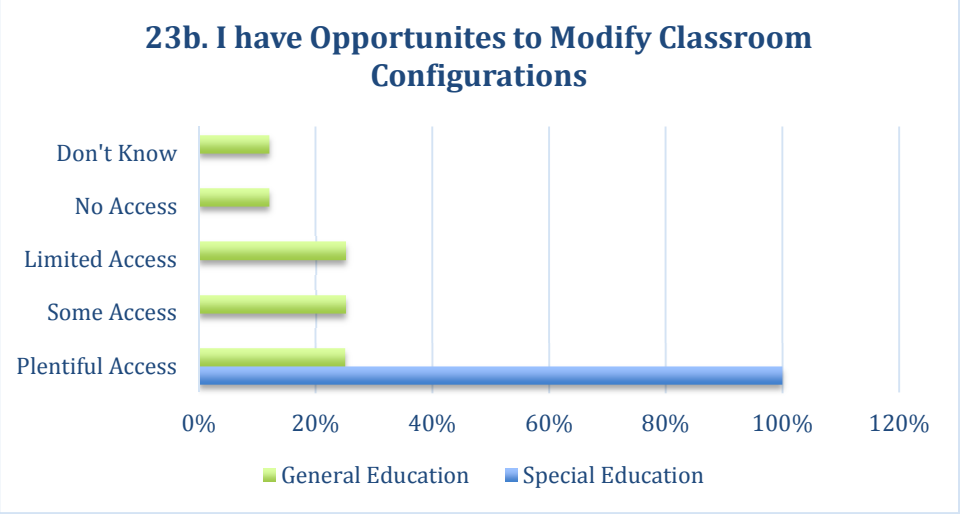

Figure 13. PCTS question #23b: I have opportunities to modify the classroom configuration.

Core Competencies Observation Checklist Results. The Core Competencies Observation Checklist had eight items related to RQ1 (Table 3). There is a 0 to 3 scale: (a) a score of 0 meaning that the observer did not see the evidence, (b) a score of 1 meaning the observer saw an attempt, (c) a score of 2 meaning the observer saw evidence, (d) a score of 3 meaning the observer saw it and it was done well. Eight classrooms were observed by the researcher for 88 minutes per class. The collaborative classrooms observed were biology, chemistry, geometry, Algebra 2, English 9, art, criminal justice, and Spanish 2. Table 3 below represents the results of the 8 items related to RQ1 in the Core Competencies Observation Checklist results.

Items 11.6, 8.6, and 8.13 all had the highest score of 3 in every collaborative classroom observed. Item 11.6 was about the two adults arriving on time in the classroom and remaining in the classroom the entire time. For the classes observed both teachers were in the classroom the entire period. The researcher had difficulty with some observations due to IEP meetings that went overtime so the special educator was unable to be in the classroom and the observation was rescheduled.

Table 3

Co-Teaching Core Competencies related to RQ1 results.

Item	Description	Min	Max	Mode	Mdn	Mean
4.5	Two or more professionals working together in the same physical space.	0	3	2	2	1.8
9.5	Class environment demonstrates parity and collaboration.	0	3	1	2	1.6
11.6	Both teachers begin and end class together and remain in the room the entire time.	0	3	3	3	3

continued

Item	Description	Min		Max	Mode	Mdn	Mean
8.6	During instruction both teachers assist students with and without disabilities.	0	3	3	3	3	
8.8	Class instruction and activities proactively promote multiple modes of representation, engagement and expression (universal Design for Learning-UDL).	0	3	2	2.5	2.5	
3.7	Differentiated content and strategies based on formative assessments are used to meet the range of learning needs.	0	3	2	2	2.2	
8.13	Technology (to include Assistive technology) is used to enhance accessibility and learning.	0	3	3	3	3	
5.7	A variety of instructional approaches (5 co-teaching approaches) are used, include regrouping students.	0	2	2	2	1.5	
1.6	It is difficult to tell students with special needs from the general education students.	0	3	3	2	2.9	

Both the general education and special education teachers in all the classrooms observed were walking around helping various groups of students in the classroom. Neither the general education nor the special education teacher pulled students out separately. Sometimes the different teachers helped individual students; however the researcher was unable to ascertain if they were general education of special education students (Item 1.6).

The high school that is the focus of this case study was built 7 years ago and is a new school with the latest technology. Item 8.13 questions whether technology is used to enhance accessibility and learning. Technology is abundant and in use in every classroom. Every

classroom had a large screen TV/document reader, and there were individual Chromebooks being used in each classroom observed. Both math classes used the Chromebooks, the document reader, and graphic calculators throughout the classroom period. All students seemed to be at ease with the technology. The art classroom even had special lighting and the materials for a visual arts classroom. Students who were mainstreamed from the moderate/severe program on the campus had specialized augmentative alternative communication (AAC) devices with eye gaze and voice output so students could communicate with their peers and teachers. Every teacher seemed to be well versed in technology as evidenced by their use in the classroom. For example, in eight out of the eight classrooms the teachers used the document cameras and seven out of the eight classrooms were using Chromebooks.

Additionally the two math classrooms were using graphic calculators. In three of the classrooms the teachers moved from the document cameras to showing videos and documentaries. The technology was interwoven seamlessly into every classroom observed. Every classroom scored a three in the use of technology.

Throughout all eight classrooms, there was evidence of *universal design* (Item 8.8). Overall, the mean was 2.5. In one classroom students could use technology, write a paper, or present a project. In all classrooms the use of technology was interwoven. Students who had difficulty with writing could use Chromebook to type. Some students had AAC devices for communication. There was evidence of universal design in the projects and student work posted in the classroom. It stated that the project could be completed through multiple means: (a) video, (b) a paper, or (c) a presentation. The use of universal design was more evident in some classrooms than others. For instance, in one science classroom the lesson started with a video, followed by classroom discussion, then moved into individual and small group discussions, and

finished with students working with their lab team partners. The classrooms that scored slightly lower were as a result of teachers having students all do the same classroom assignments. The classroom work, however, was hands-on and explained in a variety of ways. For example, students were working independently at their desks while the teacher called on various students to answer questions relating to what was displayed on the document reader. The work was color-coded and students took turns in answering and asking questions. Next materials were given out in vials for students to work in teams to determine the properties. In every classroom students were given opportunities to demonstrate their knowledge in various ways through answering questions, homework, and classwork.

Differentiation (Item 3.7) was apparent in all the classrooms, some more than others. For instance, in one classroom the teacher had interactive journals. The teacher went step by step showing the students what needed to be in the journal for that week. The interactive journals had notes, cheat sheets with needed information, and other classroom resources. One class had a few students read out loud after each student read questions were asked, then the teacher read, followed by a documentary, and ended with small group and whole group discussions. As stated earlier, the use of calculators and graphic calculators were used in both math classes. During the lesson the general education or special education teacher was writing a problem on the board, and the other co-teacher was observing, then they switched, and one of them went over the problem and demonstrated on the document reader.

Additionally, the special educator asked clarifying questions at times when he saw that students didn't understand. In one classroom the work was broken down in three steps at a time for students so they can get through the process. The special educators also jumped in and

reminded teachers to slow down and sometimes restated what they just said differently so students could understand. The overall the mean score on this item was 2.2.

Classroom parity (Item 9.5) and a variety of the co-teaching approaches (Item 5.7) had the lowest mean scores overall all 1.6 and 1.5, respectively. The literature indicates that classroom parity is difficult throughout collaborative classrooms. Furthermore, the rubric asked if both names were on the board if there were two desks and if teachers shared materials. Having two desks in a high school classroom where there are upwards of 37 students, given the size of the classroom is not entirely feasible. Likewise, teachers' names were not posted on the boards.

Additionally, special educators collaboratively teach in up to five classrooms a day. They both carry a Chromebook and other materials in their backpacks from room to room. In the math classrooms the co-teacher and teacher were both using the technology and other classroom materials. In other classrooms the special educator did have access to the materials; however the general educator was the person running the class. In other classrooms it was apparent that materials where shared. For example, while the general education teacher was lecturing the special education teacher went to his desk and started working on the computer to find out information to rearrange the seating. In another classroom, the special educator went up, turned on the document camera and started demonstrating while the general education teacher was reviewing a math problem so it was evident that classroom materials were readily shared in these classrooms.

It was difficult in the math classroom to distinguish the special educator from the general educator. The class flowed, and the teachers took turns reviewing problems with the class. They worked in tandem, and the instruction was seamless. The math classrooms were the only classrooms different co-teaching groupings such as station teaching and parallel teaching. In the

Spanish class, the co-teacher took an active role in games and skits. He also walked around and worked with small groups throughout the classroom period. Additionally, in the Criminal Justice classroom the special educator assisted with small groups and observed during lectures, took notes, and helped the general educator with grouping students. Overall, only two classrooms were using more than one or two of the five co-teaching practices.

Interview results. There were seven interview questions related to RQ1. The questions that related to RQ1 were:

1. What does instruction look like in your classroom?
2. What specific programs or specialized curriculum do you use?
3. Who is responsible for the following procedural elements in the classroom?
4. How often do whole group and small group take place, and is there any pullout?
5. Did you choose your co-teaching partner?
6. How many co-teachers do you work with during the day?
7. Do you have common planning time?

Tables 4 through 8 show the five emerging themes from the data. Table 4 having the most occurrences down to Table 8 with the least occurrences. RQ1 had a total of five themes with 259 codes in total. Some of the codes overlap with other themes; for example, lack of co-teacher training can also be under the hindrances and barriers theme.

Table 4 shows the frequencies for each of the 16 codes for a total of 98 responses and quotes by the co-teachers. The theme that emerged from the code was instructional strategies. Some were more prevalent than others. The general education teacher as lead teacher and student-focused practices were the most frequent.

Table 4

Theme 1: Instructional Strategies

	Participants										
Category Codes	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	Totals
GE is Lead Instructor	3	2	1	3	1	1	1	1	2	1	16
Student focused	5	0	1	0	6	0	1	2	0	0	15
Games, movement to enhance instruct.	3	2	0	0	2	0	2	1	1	0	13
SE scaffolds and differentiates during class	1	2	1	1	2	2	1	0	1	1	12
SE/GE switch roles more 50/50	2	2	0	1	2	1	0	1	0	0	9
SE supports so GE can provide content	1	2	0	0	1	2	1	0	1	0	8
Instruc. Delivery Different by Class/Subject	2	1	0	0	1	0	1	0	0	2	7
SE Augments GE Instruction	1	2	0	1	0	0	1	0	1	0	5
Use Frequent Breaks w/Behavior	2	1	0	0	0	0	0	0	0	0	3
Gradual release of responsibility	0	0	0	0	0	0	0	2	0	0	2
SE 100% Instructs/GE Circles	1	0	0	1	0	0	0	0	0	0	2
SE asks clarifying questions for students	0	0	0	0	1	0	1	0	0	0	2
SE Guides GE in Instruction	2	0	0	0	0	0	0	0	0	0	2
Same format in curriculum	0	1	0	0	0	0	0	0	0	0	1
SE 25% Instructs/GE 75%	1	0	0	0	0	0	0	0	0	0	1
SE leads and GE supports	0	0	0	0	0	0	0	1	0	0	1

The interview data from Table 4 shows the most prevalent code that emerged from instructional structure theme is that the general education teacher is the lead instructor. All ten participants made comments regarding the general education teacher being the primary instructor to deliver the content. When asked who was responsible for instruction participant number four replied, "I am. Not many people can teach science unless they're credentialed in science."

A science teacher further elaborated on the structure of her classroom and how the co-teacher provided support:

> So they primarily focus on the students who do need that extra support, so who have IEPs particularly, so that's why they are here at those specific times. The RSP teacher and the

> aide. But if there're other concerns or issues with students who don't qualify for the services they would then support me, but it's mostly they do support during the independent time, during independent work, for the students, and they'll go around.

Teacher 8 replied, "I am responsible for the primary content, and the RSP teacher finds the ways to support. He structures it differently sometimes. He provides more support in the process than I do typically." Teacher 6 explained,

> I use whole group to explain a new concept, it is a shorter amount of time. Then the students move into small groups to work on the concepts and their projects. The co-teacher assists me by working with small groups when they are going over the material. He also helps me break down material so students can better understand.

Teacher 2, a special educator, elaborated on the structure of collaborative teaching:

> There are two different types, and that's usually what it is in my two ranges. One is legitimate co-teaching where we're both having a part in the lesson, and one is that kind of lead teacher, the gen ed teacher is the lead, and then I assist more with clarifying things, or redirecting and refocusing to make sure the kids are on-task.

Teacher 1, a special educator, stated,

> It's rare that we teach the entire class. We may teach a component because sometimes the gen ed teacher, while they know the content, are not able to break it down at a level of that the students, including the gen ed students, can actually grasp.

He further explained, "It's kind of like we have this talent, I guess, of scaffolding things or presenting it in a different way that may not be accessible for the gen ed teacher to utilize, I guess."

In some classrooms, the groupings change, and the instruction is shared when asked about who is responsible for instruction, teacher 2 replied:

> So if it's a math class, then it looks different; it could be for that entire class period, the special ed teachers teaching, and the gen ed teacher is kind of like circling the room. Or it could be 50, 50. Or it could be 25, 75%. Or it could be just observing what's happening in the classroom that day, and the special ed teachers just flying around the room making sure that the kids are on task and asking individual questions. Not just of the special ed students, though, but also the gen ed students. So if the gen ed student has a question or needs assistance, the special ed is, because of our model, we are there primarily for the special ed students; however we're also there assisting the gen ed students.

On the structure of the school and the co-teaching program, teacher 3 stated. "There [are] so many nets to grab the kids. So there are four levels of filtering for the students." He further explained,

> They have to work hard. And this was something that we agreed to because students have to work hard here to fail. You have to work at it. For you to be, to fail, you've got to be, you've got to put effort into failing here, because there's so much support for the students.

Teacher 2 stated, "There's so much collaboration amongst the teachers because we see you. Because we're a small campus, we can go, 'Oh that kid. Oh, yeah, this right here is going on with him.'"

When asked about specific curriculums or programs, teacher 5 explained, "Algebra 1, geometry, and algebra 2, all use the same publisher, so the idea is that they understand how the book flows. Example, practice, example, test." "So they stick with that format all the way

through. So that's been one of the benefits on the math side of things is it's kind of the same." Teacher 3 responded, "We use the Pearson EasyBridge curriculum, which is our English curriculum. Students have both a book that is reproducible. But we also have Chromebooks in our class, because there is an online component for that book." Teacher 8 explained, "What's nice about that curriculum, is it does support students moving from whole-class learning to small group learning to independent learning. So it also kind of supports the idea of collaboration with the students in the classroom." A special educator explained a strategy that was being used school-wide,

> Now, this year, all of our classes are using something called CLEVER where it's like claim, evidence, reason, and that's how they're writing across the board. Chemistry's using it, English is using it, the law class uses it, history uses it, so since they're all on the same page I'm able to jump in on that strategy.

He further explained,

> For instance, in the law class they're looking at different documents, and they're analyzing. I was able to go up on the board when he had drawn their treemap, and I was able to say this is your claim part, even though it says argument, and then where it says what documents you're using I can say this is actually your evidence, and then when it says your conclusion that's your reasoning. That's your CL, EV, and ER.

When asked how lessons were structured, teacher 10 replied, "We usually use, as a school, we use the gradual release of responsibility a lot of the times." Another teacher commented, "I like to start off each class period with a warmup, where it's individual students. But then they do sometimes discuss in small group, and then we'll lead into maybe a whole class discussion." She further reiterated, "If I have to start a new lesson, I do a lot of direct instruction,

which is whole group, but I might take them through activities, where that facilitate maybe collaborative conversations or them working in smaller groups or in teams." Teacher 7 commented on the structure of instruction school-wide, "A lot of our work we focus on as a school is small group instruction."

When asked about strategies for differentiation, six out of the 10 teachers responded that they use movement and games, teacher 5 responded, "I try to get them up and moving so we do station activities throughout the room to keep them up and moving and going." Teacher 3 mentioned, "I like a game called Kahoot where we take over learning and they play. It's a game, they pick.... It's a multiple-choice game. It's a game based off of speed and accuracy. I do that a lot." Teacher 5 replied, "I try a lot of games, hands-on, a lot of movement." She further reiterated " I try to get them up and moving so we do station activities throughout the room to keep them up and moving and going." Teacher 7 shared, "I have the kids to skits, and the RSP teacher joins in, he makes the class more fun!" The art teacher explained,

> If we're going to sit and draw for an hour, I know that my class can't handle that. I will stop in the middle of class, turn on the lights, and we're going to walk around the room and look at each other's work.

Nine out of the 10 teachers made comments about the special education teacher differentiating and scaffolding lessons. Teacher 6 stated, "he makes me slow down, I tend to go too fast, he makes me slow down so all the students can understand." Teacher 9 said, "he helps me differentiate lessons, you know, he scaffolds things during the class." A third teacher replied," the RSP teacher reads the room well and assists me with breaking down the work, and he asks questions to clarify things for students." A special educator stated,

I help out by differentiating and scaffolding in the classroom; many times, it happens as the lesson is happening. I notice one, two or more kids are having issues and I jump in and scaffold it on the board or ask a clarifying question."

Interview question 5 asked was "who is responsible for the following procedural elements in your classroom?" Procedural elements such as grading, student requests, behavior modifications, behavior issues, contacting parents, etc. There were a total of 10 codes for the theme of responsibilities and a total of 78 responses. Table 5 presents the categories and the frequencies that emerged from the responses of the 10 co-teachers.

The general education teacher was the lead contact to parents for students, and the special education and general education sharing in managing behavior were the two most mentioned procedural elements in the classrooms. Six out of the eight general education teachers stated that they were the contacts for the parents unless it was an IEP issue then the special education teacher would contact the parents.

With regards to managing behavior, every participant mentioned that it was a shared endeavor one of the special education teachers replied, "I guess it's a little bit different because we don't really have a lot of behavior issues. We are a small school, we know all the kids." Teacher 2 stated, "The kids that are mainstreamed and all the RSP kids, there's not really behavior problems. There might be a kid that says something out loud, and gets up and walks out, but the teacher doesn't have to deal with that at the moment, we help." One special educator teacher explained, "We both manage behaviors, but mostly it's special education teacher as a default that is managing more of the behaviors than the gen ed teachers so that they could focus on delivering the content." One general education teacher answered, "So they help with

Table 5

Theme 2: Responsibilities

Category Codes	Participants										Totals
	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	
GE Lead Contact for GE Parents	1	1	4	6	0	0	1	4	3	1	21
SE/GE Share in Managing Behaviors	2	2	1	2	2	2	1	2	2	2	18
GE is Lead on Grading Standards	1	0	1	1	0	1	1	1	1	1	8
SE Assists GE with Accomm/Mods Delivery	2	2	0	0	0	0	0	0	0	3	7
GE & SE leads on student requests	0	1	0	2	1	1	0	0	0	1	6
GE creates lessons and assignments	0	1	0	1	0	1	1	1	1	0	6
SE scheduling of classroom support	1	3	0	0	0	0	0	0	0	0	4
GE & SE lead on grading	0	1	0	0	1	1	0	0	0	0	3
GE & SE write referrals	0	1	0	0	0	0	1	0	1	0	3
SE Lead Contact for SE Parents	1	0	0	1	0	0	0	0	0	0	2

behavioral issues. We don't have many, but one student is an issue, the RSP teacher is very good with him. He takes him on a walk to calm him down when needed." Another general educator said, "the RSP teacher reads the room well and assists me with breaking down the work, and he asks questions to clarify things for students."

As far as grading, eight out of the 10 teachers replied that the general education teacher was the lead on grading and two teachers replied that it was a team effort. The two math teachers responded that they both grade. Seven out of the 10 teachers answered that the general education teacher was the lead on grading standards. Three of the teachers answer that the general education teacher is the lead on lesson assessment. Creating and lessons and assignments fall on the general education teacher, six out of the 10 teachers responded that the general education teacher was responsible for creating lessons and assignments.

Six teachers replied that both co-teachers take care of student requests in the classroom. Most of the teachers replied that the special education teachers assisted the general education teachers with accommodations and modifications. When asked about accommodations and modifcations, one teacher replied, "Special ed delivers all of those things to the teachers, explains how accommodations should look in their specific setting, assists teachers if they have any questions about the clarity on how to manage a situation."

The data indicate that the special education teacher is also the lead in scheduling classroom support. The two resource specialist program (RSP) teachers are responsible for two grade levels each and schedule the program support based upon their caseloads. One special educator made this comment regarding scheduling support, "So I pick it based on my student's schedules, and also where I feel like I'm more beneficial being in the classroom, and not just being like a glorified aide." Another teacher explained, "Part of it's based on numbers of how many kids I have in different periods. Part of it's based on where I feel I'm most beneficial in the classroom, which happens to be the math class."

As far as behavior, teacher 1 explained how he works with his co-teachers:

> So it's helping the students manage themselves and the way that the lecture is structured, you have pauses in there to figure out exactly how and when is the best place to do this, so it's inconspicuous, so that when you leave the classroom, it's not like, "Oh my God, this person's having a panic attack." You don't know. And if I'm in the classroom, I know these things, the gen ed teacher may not be aware that that's happening because they're teaching in the front of the room. Or the gen ed teacher becomes aware of it if you're teaching in the front of the room and they're like, "Hey, [teacher 1], could you go talk to so and so because I'm not sure about what's happening right now."

The question asked was, how often do whole group and small group take place, and is there any pullout? Furthermore, what types of student groupings to you use? The theme that emerged from the data was groupings. There were a total of eight codes for the theme of groupings with total of 51 responses. Table 6 presents the categories and the frequencies that emerged from the responses of the 10 co-teachers.

The most prevalent code was push in versus pull-out. Eight out of the 10 teachers made comments regarding this. Teacher 1 replied, "I think the push-in model if done correctly and with the appropriate resources, is by far more effective than the pull-out model." He further explained,

> When you're pulling them out, you're not really in the environment to see what's happening and to see what deficits are actually they are. You're just getting a report from the student or the gen ed teacher telling you, "This is what I'm observing." But when you're actually in the environment, you can see, "Oh, this is what's going on."

Table 6

Theme 3: Groupings

	Participants										
Category Codes	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	Totals
Push-in v. pull-out	3	1	1	0	1	1	0	1	1	1	10
Various student groupings	1	0	3	1	3	0	1	0	0	0	9
Whole group, then small group, then individual	0	1	1	2	0	1	0	1	2	1	9
SE + GE Collaborate Student Seat/Group Assign.	2	4	1	0	1	0	0	0	0	0	8
SE students in GE 95-99%	3	1	0	0	1	0	0	1	0	0	6
Co-teachers chosen by grade level	0	0	0	0	0	1	1	0	1	0	3
GE confers with SE Re: seating arrangements	0	0	0	0	0	0	1	1	0	1	3
SE observations in push-in	1	2	0	0	0	0	0	0	0	0	3

Teacher 2 stated, “I think the student gets way more attention from us when we are strategic, and it’s almost like, you know, it’s a boutique service, the push-in model.” Teacher 4 shared, “I think this is by far the best model that we have going right now. I tell everyone if you can have a push in model on your campus, it will be the best dynamic for your special teacher, your gen ed teacher, your administrators, and, most importantly, the student.” Teacher 1 stated:

> Last year I had more Gen Ed students pull me aside to have conversations with me. Because I’ve been in their classes since they were in ninth grade, so they’re used to seeing me in their classes. And so they’re also have built up this familiarity with me.

Teacher 6 was the only teacher to comment that pullout, separate classes may still be necessary, “I think some of our RSP kids would still be benefited by having an RSP class.” Teacher 8 explained:

> I feel like for this program that if you can establish a push-in model somewhere. I think that the collaboration model and how it works on the front end will be vital to make sure that everyone knows what it looks like, and they aren’t so intimidated. But I think it’s way more beneficial than the pull-out.

Teacher 2 shared,

> So there’s only pull-out when we need to talk about something that’s private or if there’s some issue that we see that, “Okay, you’re not having a good day today. I need to refocus you so that you can get back in there and be productive. Oh, you’re not going to have a good period all period, so this is what you need to do. I need you to sit in the back of the class, take a deep breath, we’ll go back over this later. Because right now you’re not receptive to learning.” They aren’t even aware that they’re not receptive to learning sometimes.

When asked about student groupings, teacher 3 stated,

> I have a ninth-grade group and a 12th-grade group. The 12th-grade group is very mature. The ninth-grade group is very immature. So I have a lot more input into groups and what goes on with the ninth grade versus the 12th grade. 12th grade, they have more leeway.

Teacher 5 stated, "I try to get them up and moving so we do station activities throughout the room to keep them up and moving and going." Teacher 2 confirmed teacher 5's answer when he said, "In the classes with true co-teaching we do some of the different co-teaching groupings such as parallel teaching and team teaching." Teacher 7 stated, "We teach mainly in small groups; first we do a warm-up, then small groups—we do a 5-2 rule where they read for 5 minutes then talk to a partner in a small group for 2 minutes."

Eight out of the 10 co-teachers responded that they collaborate with their co-teaching partner regarding seating arrangements. Teacher 1 stated:

> Student groupings are based on a lot of dynamics that are going on in the classroom that day. Of course, you want to pair your weaker students with your not so strong students, with your stronger students if you can, if that's an option based on personality. So it's not just about, Oh academically these two will be beneficial because this one could actually learn by teaching. And this one can learn by being retaught by the one that knows. However, you have personality types you also have to take into consideration and disabilities. Now this person has autism. They don't like this smell. They don't like this activity. They don't like this behavior.

Teacher 5 stated, "Seating is done collaboratively. So it will be both the special ed teacher and the gen ed teacher. That's having conversations about how students should be arranged in the classroom." When asked about who is responsible for seating arrangements, teacher 8 said,

"That'll be me, but I also work with the co-teacher, just to find out the best seats for specific students."

The next theme that emerged through the data was program structures. There were a total of two codes for the theme of groupings with total of 18 responses. Table 7 below presents the categories and the frequencies that emerged from the responses of the 10 co-teachers.

When asked about choosing their co-teacher teacher some of the teachers spoke about how the school was a pilot program when it first opened. Teacher 1 stated,

> What we've learned from talking to seasoned teachers here is that, initially, they were very like, "I'm don't know what I would've done if you hadn't been in the classroom." So they see the benefit of having us in there now. But initially it was a pilot program in the district, so no one had ever seen it happen, so everyone was kind of apprehensive, "We'll try it. It's a new school, but we're not sure exactly how it's going to work out. And I'm not really comfortable really with you being in here, but I really like the new school, I want to be in the new school and they have these programs at hand. So I'll come over and we'll test this out, but I'm not really sure I want you around."

Teacher 3 stated, "Now our dynamic is such that before you even could be employed here, it's with the contingency that you will be having a co-taught class with special ed." In contrast, three other teachers said, "No, we were not told we would be co-teaching."

Table 7

Theme 4: Program Structures

	Participants										
Category Codes	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	Totals
Two teachers is huge	2	1	1	0	1	1	1	1	1	1	10
Pilot program	4	1	1	0	0	0	0	0	0	2	8

When it came to choosing teachers, teacher 4 stated, "No, I didn't get to choose, he had a lot of students in my class and said, I'll be in your class." Teacher 1 said,

> We go into classrooms based on our caseload. This year I have ninth and 12th, so and the way the numbers fall I am going into classrooms where I am not comfortable with the content, so this year is not as much fun.

Teacher 1 reiterated, "I assist and observe, I don't get to do any team teaching." Teacher 5 stated, "No, we don't get to choose, they do it based on numbers, and they both have two grade levels. But if I got to choose I would choose Teacher number 2, he is great!" Teacher 1 stated,

> We keep the same students for all 4 years. So for ninth grade, I will have the ninth graders until they graduate. And then the next year, I'll pick up another set of ninth graders, and then we'll just transition all, progress all the way through, and then when they fall off and graduate we'll pick up another set.

Seven of the eight general education teachers replied how they liked having a co-teacher in their room. Teacher 8 stated:

> Having two teachers is huge, it's two sets of eyes and ears, they see things we don't see, they help all the kids, he can see that some kids aren't getting it and then he will ask me a question to clarify. This way, the quiet ones aren't embarrassed, and no one is singled out.

Teacher 9 stated, "It really benefits the kids because there are two of us in the classroom." Teacher 7 replied, "Many times the co-teacher participates in the lessons and skits learning along with the students. He helps lower their anxiety and makes class more fun." Teacher 8 stated, "He notices that students don't understand things and will ask some clarifying questions to help the students understand." Teacher 9 stated, "Since the special education students are in our

classrooms 100% of the time it is very helpful to have the RSP teacher, it's also great for the gen ed kids, some of them also need the extra help."

The final theme that emerged from the interview data for RQ1 was meeting structures. There were three codes, and 25 responses from the 10 teachers interviewed. Table 8 presents the categories and the frequencies that emerged from the responses of the 10 co-teachers.

When asked if the co-teachers had a common planning time and or what program structures were there to meet with their co-teachers, nine out of 10 co-teachers, 90%, responded that there were department meetings. Seven out of the 10, 70%, responded that there were grade-level meetings where they could sometimes plan with their co-teacher and four out of the 10 answered that they had common conference periods with their co-teachers. Teacher number 6 stated, "We have department and pathway meetings for planning. We meet with co-teachers

Table 8

Theme 5: Meeting Structures

	Participants										
Category Codes	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	Totals
Department meetings	1	1	1	1	1	1	1	0	1	1	10
Grade-level meetings	2	2	0	1	0	1	0	1	1	1	10
Conference periods	0	2	0	0	1	0	1	0	1	0	5

During conference periods, if needed or speak with them before class." Teacher number 6 replied, "There isn't a special co-teaching planning time. We find time to meet with them when they aren't busy with IEPs or special education stuff during conference periods."

When asked if the co-teachers had a common planning time and or what program structures were there to meet with their co-teachers, nine out of 10 co-teachers, 90%, responded that there were department meetings. Seven out of the 10, 70% responded that there were grade-

level meetings where they could sometimes plan with their co-teacher, and four out of the 10 answered that they had common conference periods with their co-teachers.

Teacher 8 stated, "We have department and pathway meetings for planning. We meet with co-teachers during their conference periods, if needed, or speak with them before class. There isn't a special co-teaching planning time." Similarly, teacher 6 replied, "We have pathway meetings and department meetings. Now that we have the same conference periods we can find time to plan with co-teachers if they aren't in IEPs of busy with special education staff." Likewise, teacher 2 stated,

> I really think we do some planning at our once a week meetings with our departments, with our grade levels, with our pathways. But then I think it's really on our own. This year they've made it a little bit easier, where a lot of us have the end of the day planning, which is seventh and eighth period.

Teacher 10 stated:

> I want to sit down with the RSP teachers that I'd be co-teaching with before school starts and be like, "All right, who are my kids? What do their old accommodations say from middle school? How do I teach these lessons and fill in these accommodations," and so that way I can meet the accommodations. That kind of stuff would be really important, or just to stand with the RSP teachers and be like "Here's my curriculum, and here's how you could fit in nicely." So that way we are really more co-teaching. Instead of me being in charge and taking over, there's more of a team effort.

Triangulation of data. The triangulation of the survey, observation, and interview data provided some interesting insights into the program and structures for successful co-teaching. The observational data confirmed much of what the teachers answered in the survey data as did

the interview data and some were conflicting, for example regarding regular feedback in the classroom. Regular feedback was observed in almost all the classrooms except for the one classroom where the general education teacher answered that she "strongly disagreed" with providing regular feedback. As far as sharing classroom instruction, in the interview when asked who is responsible for instruction one of the teachers who disagreed stated, "I am, not many people are credentialed in science."

Further in the interview process, she said, "This is my first year co-teaching, I would like to learn more about co-teaching strategies and how to use my co-teacher more effectively in the classroom." Teacher 7 stated, "It would also be great if they had more content knowledge." The other science teacher, however, stated "Even though he doesn't have the content knowledge, he is very good at scaffolding and providing assistance in breaking things down. He listens and learns with the students and then can help them." In contrast, the general education teachers who "strongly agreed" and "agreed" that classroom instruction should be shared were sharing instruction during the observations and validated this during the interviews.

The school studied was originally set up as a pilot program where teachers were supposedly told they would all be co-teaching. Teacher 1 explained, "Now our dynamic is such that before you even could be employed here, it's with the contingency that you will be having a co-taught class with special ed." Another teacher stated, "Initially it was a pilot program in the district, and co-teaching was part of the pilot." The data, however, are conflicting. Half of the co-teachers answered on the PCTS that they volunteered for co-teaching and half answered that they did not. When asked in the interviews, five teachers stated, "No, when I was hired I was not told I would be co-teaching." Then I asked were you hired when the school first opened? Only two of the teachers who said no were there from the beginning. One further stated, "Maybe it

was only the special educators who were told." Three of the general education teacher did say they knew they would be co-teaching when they were hired.

The survey data stated that eight out of the 10 teachers agreed that they share classroom responsibilities; this was confirmed with the observational data and with the interview data. As far as the groupings whole group to small group was observed in all the classrooms. Team teaching was observed in two classrooms. Interview data confirmed this, and other groupings such as station and parallel teaching take place in the two classrooms.

Daily planning time per the survey was only valued by four of the teachers, and only two agreed that it happened. It was observed when a teacher came into see the special educator during his conference period and one teacher stated,

> I always talk to him 5, 10 minutes before class to let him know what to expect or five to 10 minutes after so he knows what is happening the next day, we have worked together for a few years, so he knows my routines.

All of the teachers, however commented on the different set meetings in the school program: (a) pathway, (b) grade level, and (c) department and how if there is time they can plan with their co-teacher or meet with him during a conference period.

The observational data showed that the co-teachers were in the co-taught classes for the entire period and were either team teaching, scaffolding, assisting, or observing the interview data also confirmed this. The data showed that an observer cannot tell the difference between the general education and special education student in the co-taught classes and that the special education students were in the classrooms 100% of the time. The data from the observations and the interviews indicated that having two teachers is better than one. Teacher 5 explained:

> I would definitely say having the two teachers is best overall being where I'm just by myself, I can overall see how it does make a big improvement on the student's learning because they that extra set of eyes and ears and knowledge to go to instead of it just being me. I think the students benefit from that setup better than if it's just one teacher because you can only do so much. I definitely think having the two teachers in there is huge.

Research question two (RQ2). *What attitudes, behaviors, and relationships contribute to the success of the co-teaching model?* Data collection to answer RQ2 included ten questions from the PCTS, 11 items from the Co-Teaching Core Competencies Observation Checklist, and seven interview questions. The first section analyzed the PCTS responses; the second section analyzes data from the observations, followed by the primary data from the interviews. The survey, observation, and interview data for research question two were then triangulated.

PCTS results. There were ten questions used from the PCTS used to analyze RQ2: 1 through 5, 7b, 8b, 9b, and 10b. Questions 1 through 5 on the PCTS related to co-teachers perceptions of their current experience. Questions 7b through 10b were about the collaborative practices co-teachers employed.

For question one, 90% of the co-teachers "strongly agreed" that they work very well together, and 10% "agreed" (Figure 14). In regards to question two (Figure 14), most teachers, 80%, felt that collaboration had improved their teaching. One teacher was neutral in their response, answering that they did "neither agreed or disagreed." One teacher "strongly disagreed" that collaboration has not improved their teaching. It is important to note that the two outliers are the two teachers who have been co-teaching for only 1 year. The other six general educators have 2-5 years of experience collaborating with their co-teaching partners.

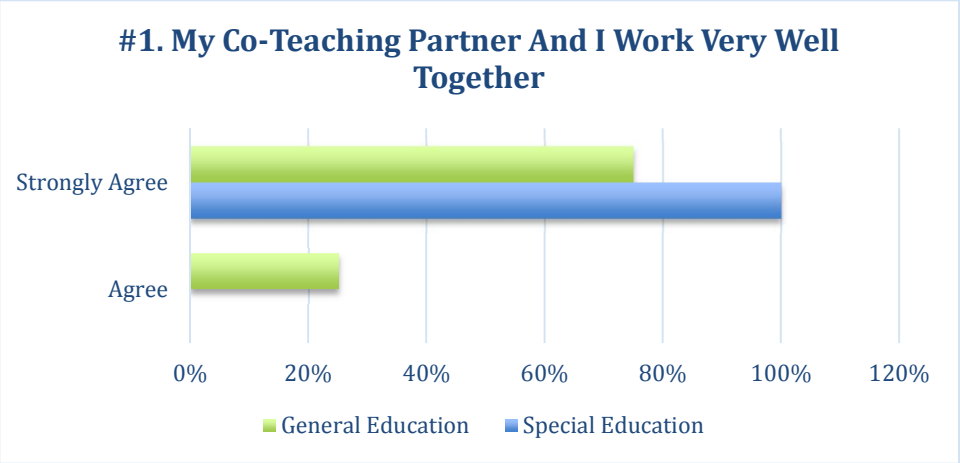

Figure 14. PCTS question #1: My co-teaching partner and I work very well together.

For PCTS question 2 regarding if collaboration/co-teaching has improved their teaching practice (Table 15), 30% of the co-teachers "strongly agreed" and 50%, two special educators and three general educators, "agreed." One general educator "neither agreed or disagreed" and one "strongly disagreed."

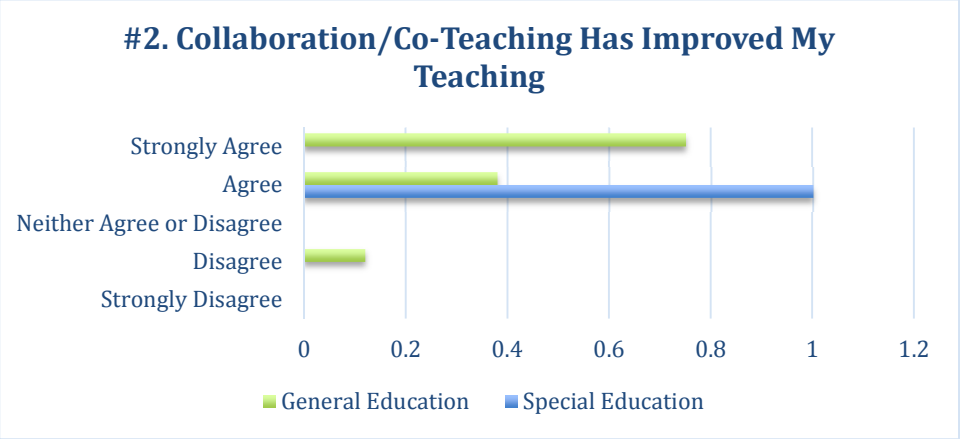

Figure 15. PCTS question #2: Collaboration has improved my teaching.

The literature over the past 40 years indicates that general educators usually feel they do more than their co-teaching partners. The data indicates (Figure 16) that 40% of the educators "strongly agree" they do more than their partners, and 30% "agree." One special educator and one general educator, 20%, "neither agree nor disagree" that they do more work. One special educator, 10%, "strongly disagrees" that they do more work than their collaborative partner.

Figure 16. PCTS question #3: In my collaborative experience, I do more than my partner.

Question 4 asked whether the co-teachers felt that co-teaching is a worthwhile experience (Figure 17). The results were mainly positive, with 60% of the teachers answering that they "strongly agree" and 30% answering they "agree." There was one outlier that "disagreed." The one teacher who answered "disagree" is the teacher who had been co-teaching only for one school year and was teaching in a content area where the special educators did not have training or expertise.

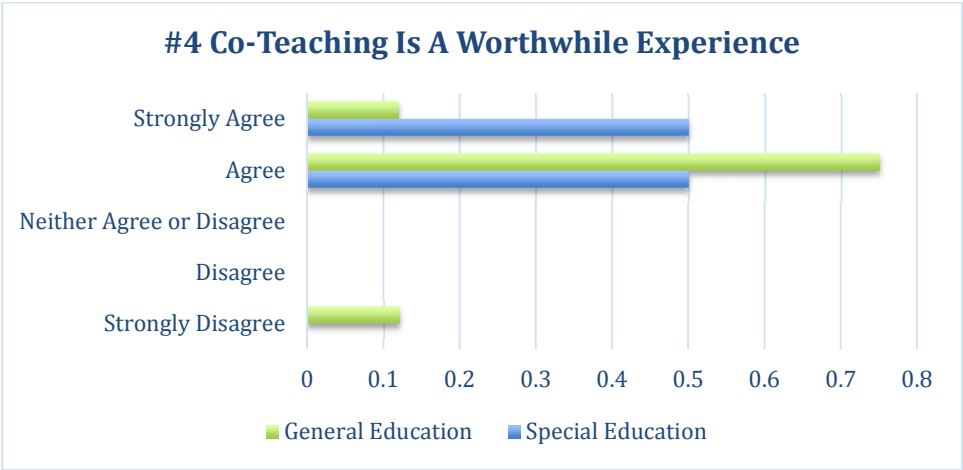

Figure 17. *PCTS question #4: Co-teaching is a worthwhile professional experience.*

Question 5 (Figure 1) asked if co-teachers solicited feedback from each other and benefited from it. The response was mostly positive with the majority, 90%, strongly agreeing or

agreeing. There was one outlier who strongly disagreed. The interview responses will assist in soliciting the reason for the one negative response.

Questions number 7b through 10b pertain to recommended collaborative practices that the co-teachers employ in their classrooms. Question 7b asked whether the co-teachers shared classroom management responsibilities (Figure 5). Both special educators and five general educators, 70% of those surveyed, "agreed" and "strongly agreed" that they share classroom management responsibilities. Three general educators, 30%, remained neutral, answering that they "neither agreed or disagreed."

At the heart of co-teaching, per the literature is sharing classroom instruction. Of the teachers surveyed, 60% answered that they "agreed" they shared classroom instruction, and 10% "strongly agreed" (Figure 7). The special educator who "strongly agreed" is the teacher who co-teaches in the two math programs that are his area of expertise. 20% of the co-teachers were neutral, 10% percent "disagreed," and 10% "strongly disagreed." The general educators that "disagreed" and "strongly disagreed" teach in specialized content areas that the special educators do not have content expertise.

Co-teachers mainly responded that they regularly offer feedback on question 9b (Figure 9). Of the co-teachers surveyed, 80%, six of the general educators, and both special educators replied that they regularly offered feedback to their co-teaching partner. One general educator remained neutral, and one "disagreed" that they regularly offered feedback to their co-teaching partner. The results were similar in regards to co-teachers establishing and maintain specific areas of responsibility in question #10b (Figure 11). Five general educators and both special educators,70%, "agreed" that they establish and maintain specific areas of responsibility. One

general educator "disagreed" and one "strongly disagreed" that they practiced establishing and maintaining specific areas of responsibility in their collaborative classrooms.

Co-teaching Core Competencies Observation Checklist results. There were 11 items on analyzed on the Co-teaching Core Competencies Observation Checklist to answer RQ2. The minimum, maximum, mode, median, and mean of the checklist items relating to RQ2 are displayed in Table 9. Table 9 represents the results of the 11 items related to RQ2 in the Core Competencies Observation Checklist results.

Items 8.6, 1.9, and 2.7 all had perfect scores of 3 on the checklist. Item 8.6 pertains to both teachers working with both students with and without disabilities. It was not discernable who the students with disabilities were in the classroom. Only in one classroom was it evident because the student has issues with balance and has an assistant walk him into the classroom. He was frequently called to answer questions. He was an active part of classroom discussions. All co-teachers in every classroom were observed working with all students in whole group, small group, and individualized instruction.

Item 1.9 relates to student conversations and evidence of a sense of community, including peers with disabilities from diverse backgrounds. Every classroom had a mix of students from various racial and ethnic backgrounds such as Caucasian, Hispanic, African-American, and Asian. The students with disabilities were interspersed amongst the students without disabilities. During group and pair work students were discussing the various questions and tasks assigned to them. No students were off on their working or left out of conversations. Students were observed smiling and laughing at times and were fully engaged in the task at hand. There was a sense of community and belonging to all students. Students were observed in the common space during free time, conversing with each other, and playing cards.

Table 9

Co-Teaching Core Competencies Observation Checklist related to RQ2

Item	Description	Min	Max	Mode	Mdn	Mean
9.5	Class environment demonstrates parity and collaboration.	0	3	1	2	1.8
8.6	During instruction both teachers assist students with and without disabilities.	3	3	3	3	3
9.6	The class moves smoothly with evidence of co-planning and communication between co-teachers.	1	3	3	2	2
5.7	A variety of instructional approaches (5 co-teaching approaches) are used	0	2	2	2	1.5
2.7	Both teachers engage in appropriate behavior management strategies as needed and are consistent in their approach to behavior management.	3	3	3	3	3
1.6	It is difficult to tell the specialist from the general educator.	0	3	0	2	1.3
9.10	Co-teacher use language (“we;” “our”) that demonstrates true Collaboration and shared responsibility.	1	3	2	2	2.3
5.9	Communication (both Verbal and non-verbal) between co-teachers is clear and positive.	2	3	3	2	2.8
1.8	Co-teachers phrase questions and Statements so that it is obvious that All students in the class are included.	1	3	2	2	2.3
1.9	Students’ conversations evidence a sense of community including peers With disabilities from diverse backgrounds.	3	3	3	3	3
8.16	Co-teachers ask questions at a Variety of levels to meet all students’ Needs (basic recall to higher order thinking).	2	3	3	2	2.5

Item 2.7 applies to behavior management in the classroom. There were very few behaviors observed in the classrooms during instructional time. One time a student was messing around with his paper, and the special educator quietly caught his attention, and the behavior ceased. Instructional time was well-structured in all the collaborative classrooms observed. The students seemed to be well versed in the pace and proceedings of the various classrooms. Some teachers had the daily schedule posted on the board and others had a sequence that was followed daily. The students all seemed to know what was expected of them and any slight behavior was easily dealt with by a look from one of the co-teachers.

Item 9.6 refers to the "the class moves smoothly with evidence of co-planning and communication between co-teachers." The rubric for this item of the checklist referred to the evidence of prior planning and if both teachers were comfortable with the lesson and knew what was supposed to happen. In the two math classes it was evident that both co-teachers knew what was to happen and there was a flow to the class from one teacher to the other. In other classes it was evident the content area teacher planned the lesson, however if most of the classes, the co-teacher knew what was expected and followed along with the lesson. One classroom the general educator was basically in charge of everything and the co-teacher went around and helped and was treated more as an assistant. In all the other classrooms the co-teachers readily jumped in and helped in small groups, easily jumped into assisting during a lesson, and seemed to be more familiar with the flow of the lessons. The overall mean score was a 2 for this item.

Item 9.10 applies to using "we" and "our" language. In most of the classrooms observed, co-teachers used the "we" language and communicated positively amongst each other. A score of 2 meant that adults attempted to use the "we" language, but it was evident that one adult is

more used to "ruling" the class. This was the case in five out of the eight classrooms observed. The overall mean score was 2.3 for this item.

Item 5.9 pertains to co-teachers' communication with each other. Positive communication was observed in all the classrooms in this study. Two of the classrooms had constant communication and the teachers were working together to assist the students. A couple of the classrooms had minimal communication; however it was positive. The overall mean score for this item was 2.8.

Item 1.8 addresses co-teachers' questioning of students. All the classrooms, the general educator asked questions that encouraged participation from a variety of students, which would garner a score of 2. Most classrooms scored a 2 because it was mainly the general educator asking the questions. In the two math classes, however both teachers did the questioning, so they scored a three. Only one classroom relied more heavily on general statements and questions. The overall mean score for this item was 2.3.

Items 9.5, 5.7, and 1.6 had the lowest overall mean scores. Item 9.5 pertained to teacher parity in the classroom environment. The question was asked whether the teachers shared the classroom materials and had clear parity with both names on the board, two desks, and an obvious feeling that it was both teachers' classroom. The general educators only co-teach one to two classes per day so all the classrooms were geared more towards the general educator. Most classrooms scored a one because the classroom belonged mainly to the content area teacher and the specialist came into co-teach for one period a day. In two of the classrooms there was a clearer parity. The special educator and general educator shared the classroom space taking turns at teaching a lesson or going over quizzes. In one classroom, while the teacher was giving a lecture, the specialist went to the teachers' desk and used the computer to gain information on

the students to help with the grouping. So even though the specialists did not have their set desk and space, the general education teachers in half of the classroom readily shared their classroom materials. The special education teacher did not have to ask to use the materials; this was a sign that they readily shared. The overall mean score was 1.8 for this item.

Item 5.7 was regarding the use of the five co-teaching approaches: (a) one teach/one support, (b) parallel teaching, (c) station teaching, (d) team teaching, and (e) alternative. Most of the classrooms used the one/teach one support model. In two of the classrooms team teaching was observed. All of the classrooms used the strategy of gradual release. They did whole group instruction, then small group, then individual. During small and individual instructional time both teachers walked around the room assisting students. The overall score for this item was 1.5.

Item 1.6 pertains to being able to tell the special educator from the general educator. In all the classrooms, except for the two math classrooms, it was very apparent who the general education content expert was and who the education specialist was. The general educator was leading the class, and the special educator was sitting in the back or walking around assisting students. The overall mean score was 1.3 for this item.

Interview data. There were six interview questions related to RQ2. The questions that related to RQ2 were:

1. How many co-teachers do you work with during the school day?
2. Describe the benefits and barriers to teaching with more than one co-teacher.
3. What aspects of the curriculum are you most comfortable teaching?
4. How important is trust and respect in a co-teaching relationship?
5. What are the most important aspects of a successful co-teaching relationship?
6. Have you had any issues with co-teachers, and if so, how did you resolve them?

Three themes emerged from the interview data: (a) relationships, (b) special education teacher behaviors, and (c) communications. The most prevalent theme was relationships (Table 10), which has a total of 11 categories and 106 responses.

Table 10

Theme 6: Relationships

	Participants										
Category Codes	P1	P2	P	P4	P5	P6	P7	P8	P9	P1	Totals
GE/SE teamwork	3	4	0	0	9	4	3	2	0	0	25
SE/GE trust and respect in co-teaching partnership	5	4	1	1	5	1	1	1	1	0	20
cultivating a relationship	3	0	0	0	5	4	2	4	1	0	19
SE/GE conflict resolution	4	8	0	0	1	1	0	1	0	0	15
SE/GE finding each other's strengths	2	2	1	0	0	0	0	0	1	0	6
GE receptive to SE in classroom	4	0	0	0	1	0	0	0	0	0	5
GE awareness	1	1	0	0	0	0	0	0	0	2	4
SE/GE Open-mindedness	2	1	0	0	0	0	0	1	0	0	4
No issues with co-teach	0	0	0	0	0	1	1	1	0	0	3
Trust	0	0	0	0	1	1	0	0	0	1	3
GE choice of SE	0	0	0	0	2	0	0	0	0	0	2

Six out the 10 teachers had comments regarding the collaborative partnership with their co-teacher and nine out of 10 teachers mentioned trust and respect. When asked about how important trust and respect were and what are the most important aspects for a successful co-teaching relationship, many of the answers that were similar overlapped. Teacher 5 when asked how important trust and respect is in a relationship answered:

> I think it's huge because if you don't trust the person that you're teaching, you're going to second-guess them and it's going to show in the classroom. It comes out. I think that there has to be some trust and level established with the teachers of understanding so that when you are working together those kids can see that teamwork that you have. Therefore they can see how it should be amongst them when they're working together.

> Because that's what I stress is you got to work together. It's teamwork. If we don't have that, then how can they have that? I think it's huge.

Teacher 10 explained,

> At the end of my lecture, [teacher 2] walked up and handed me this seating chart, do you really think I'm just going to take a seating chart from someone I don't trust and respect? I've had teachers I've worked with at other schools, I would just tear it up!

Another teacher replied,

> Whether it's a gen ed student or not he supports all the kids, and then including me as a teacher, he's just a lifesaver. He's there and he supports everybody. Yeah, if I could choose I would choose him in a heartbeat.

Another general education teacher replied, "So definitely the trust on both parts. Also making sure that both teachers are on the same page." Teacher 3, a general educator stated, "This year the RSP teacher I'm working with, there's like a great relationship. We talk, we talk about the students really well together." Teacher 8, a general educator, shared:

> I think it's like a relationship. In any relationship, you have to be able to trust them and be able to work together, in order for the success of that student, because you're at odds. First of all, you're in a small room, the kids are going to see that. They're going to see, and teenagers are not dumb, they recognize when someone doesn't really get along well or like someone.

One of the special educator's comment regarding trust and respect was:

> It's vital because it allows you the flexibility of knowing that I'm not in this by myself, first of all. I know that this person is here to support me, second of all. If there's any type

of confusion, I know that we have a relationship that we can actually have a conversation about it.

The other special educator explained:

> I think the respect piece comes in. I am a real teacher, I'm not an aid. I think building that whole rapport piece of, I am a second teacher in this classroom. Even if I don't jump in and teach the exact content, I'm still a teacher in the classroom.

Regarding teamwork and relationships, a general education teacher stated:

> But it's always been a benefit because they understand my flow and so they just kind of chime in and they help the kids. I had one teacher that I worked with; he was really good about asking, verifying questions that kids were always afraid to ask. But it was like, oh this is something that these kids need to know that I should cover. But the kids may have had the question, but didn't know how to ask it. He was always good at asking those clarifying questions for the students based on what they were showing in their work or the confusion they were exhibiting.

Teacher 8, another general education teacher said regarding teamwork and her relationship with her co-teacher,

> He looks at the students as we're going to see where they're getting it, whether or not. Then he kind of piggybacks off of there. Strategically, yeah. But it's based on the kids; how they're grasping the content, how they're getting it because he's able to see little things that I can't see.

Regarding cultivating a relationship, teacher 1 responded,

> I think one of the most important ones is just availability and being open to being corrected. And when I say corrected, I mean influenced in a certain direction. So that you

know that when I'm having a conversation with you I'm not being critical. And if you're asking me a question about a student it's from a perspective of how do we assist the student and not how do we punish the student. Because a lot of the frustration that comes with behaviors are based upon just that. It's frustration not being able to access the content.

Another teacher replied:

I think it's important to work on cultivating and having that relationship. There are times where I might have to meet with my co-teacher, obviously outside of class, and we talk about things that we need to help further develop or support our class and what we're doing and our students.

Additionally, a special educator replied:

I think I get to know how a teacher runs their classroom, so I know if I need to front-load my kiddo, Hey, this isn't the class that you keep one headphone in. This isn't a class that you fold paper to stay focused. Let's not do this here, but we can do this here.

Two teachers mentioned conflict resolution; however all of the conflict mentioned, with one exception, was in the past. One of the special educators stated that in the past if there was a conflict this is one way he handled things,

So if there's a conflict and, "Oh, my philosophy about this is different." "That's great. I'm glad you have your philosophy. However, the IEP says XYZ, and we are going to follow the IEP because that's actually something that we've all agreed to."

The other special educator has explained some of his issues when teachers were reluctant to have him push into the classroom:

> We have to make sure that we're not playing the "my students" and "your students" type thing. That's some things that we've had to work through with some teachers because that's the, "Are you going to work with your students today?" No, they're all our students. We have to work through that.

Teacher 2 explained:

> I'd say, my first year, it was that struggle of, "What are you doing here? I don't need you here," type thing. Then we slowly found ways where I could more or less check in with small groups here and there, just to make sure it was known that I knew what was going on in class, that I was a presence in class.

Teacher 2 shared about a conflict resolution he underwent with a science teacher this year who was in her first year of co-teaching:

> Another science teacher who, it was very subject-specific. Not my content matter, my knowledge was not at that level, and I understood that. It was to the point where it was like, "I don't need you here," and it got to the point, I'm sorry. It doesn't matter. I'm going to be here. We worked through that, and now we work well together.

When asked about the benefits and barriers of working with more than one co-teacher Teacher 2 replied:

> I think the benefit is I get to see all of the teachers that my caseload of students are having, so I know, Okay, this class, late work isn't going to be as easily accepted, so I know which kids I need to focus on. Hey, that class needs to be our priority. That stuff needs to be turned in right away. We might have some leeway with other classes and other teachers.

When asked about teaching in different classrooms, teacher 1 answered:

> I think it's good for me to see, because if I'm not in a Spanish class with this student, but I'm in the same teacher's class in a different period, he can tell me, "I don't have anything to do," "I know you do. You have a project, because I'm in that class today too." That's been a benefit, too, is, even if I'm not in the kid's actual period, I can actually know exactly what's going on because I'm with those teachers at some point within the two school day blocks.

The second most prevalent theme that emerged from the interview data regarding RQ2 was special education teacher behaviors. There were 13 categories and 80 responses. Table 11 shows the categories that emerged from the teachers' responses.

The category with the most occurrences was special education teachers in-depth knowledge of the student with 21 responses from four teachers. One special educator responded,

> So it's way more impactful when you're actually able to push-in with a kid and see exactly that behavior and personally go, "Oh, this is what's happening. Oh, that kid's reached his frustration level at that point. Oh, this is what's going on with them. When they do this, this is what that means."

He responded further:

> because we're with them as a cohort for their entire 4 years. So I'm with you in freshman year, I'm with you in 10th-grade year, I'm with you in 11th-grade year, I'm with you in the 12th-grade year. So I see your growth, where you may have one history teacher for 1 year or math teacher for 1 year, I'm with you for all 4 years, so I know you better than you know yourself, academically.

Teacher 1 further explained the relationship with the students and their families, "I think 11th-grade year is when the parents will relinquish control. And you know what's going on with the

kid, now help. And the last of the meetings, you know, 'What should we do here, Mr. Number 1?'" Teacher number 2 stated:

> Every student with an IEP is just an unique individual, and you're constantly learning. You're constantly not knowing what's happening because that student is a human being, and that human being has their own unique set of circumstances and the way they manage them. And so you're constantly figuring out how do I help this individual? And not like how do I help this ninth-grader."

Teacher 1 further stated,

> And there are going to be moments, just because you're essentially a surrogate parent for that kid. That parent, that kid will be coming to you for things like, "Okay, I'm having a bad day. Or, I don't know how to communicate."

Table 11

Theme 7: Special Education Teacher Behaviors

	Participants										
Category Codes	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	Totals
SE in-depth knowledge of Students	11	4	0	0	5	0	0	1	0	0	21
SE comfort in content areas	5	5	0	2	0	2	1	0	0	1	16
SE builds rapport	0	8	0	0	0	0	0	0	0	0	8
SE constantly figuring out how to help students	3	4	0	0	1	0	0	0	0	0	8
SE guiding students	3	4	0	0	1	0	0	0	0	0	8
SE cares about all students	1	0	0	0	2	0	0	0	0	0	3
SE constantly learning	1	1	0	0	0	1	0	0	0	0	3
SE credentials/expertise	0	3	0	0	0	0	0	0	0	0	3
SE knows teachers' personalities/philosophies	0	3	0	0	0	0	0	0	0	0	3
Constant dance of making things work for students	2	0	0	0	0	0	0	0	0	0	2
SE needs to be on	1	1	0	0	0	0	0	0	0	0	2
SE thoughts about co-teaching	1	1	0	0	0	0	0	0	0	0	2
SE Explains Accomm/Mods to GE	1	0	0	0	0	0	0	0	0	0	1

The second most occurring category was the special education teachers' comfort in the content area with six teachers responding. When asked what the teachers were most comfortable teaching, all the general educators answered with the subjects they teach, and the two special educators answered math. For example, teacher 1 responded, "I'm good at math. I actually enjoy math. Math was always a very comfortable subject for me. Biology is also right in there with anatomy."

Teacher 2 explained how he was not comfortable with Advanced Placement classes, "I would hate to teach a lesson one day that's on their AP exam, and now they're stuck because it was me that taught it and not the actual AP-certified teacher." He further went on to explain how he does work with the student in AP class,

> In that class, I'm literally taking notes with the students. She does outline notes, so I'm filling them in as I go. If I notice a kid's off task, I go and check-in and say, "You missed that whole slide. Here," so they copy down the notes they missed."

The other special educator shared how his thoughts about co-teaching in a Spanish class when he is not fluent,

> I took 4 years in high school and I co-teach it, but it's a struggle sometimes. Me and Google Translate are good friends in class. Every once in a while I'm like, I'm going to go look something up real fast. I'll be right back."

Many of the general educators replied in previous questions that it would be nice if their special education co-teacher had content knowledge, the chemistry teacher replied, "Yes, he helps; however he doesn't have the content knowledge, that would be helpful. I do know he teaches more in the math classes." The art teacher stated,

> Last year the teacher would take notes and monitor, but he couldn't necessarily help though, because he's like, "I can't draw to save my life either." So I think that's the hard part is I have such a specialized curriculum, that if you don't have experience.

She stated further, "I'm lucky, the instructional aid that I have, she has experience in art, so it makes a huge."

Regarding building rapport, teacher 2 responded.

> I am a real teacher, I'm not an aide. I think building that whole rapport piece of, "I am a second teacher in this classroom." Even if I don't jump in and teach the exact content, I'm still a teacher in the classroom."

Additionally, he explained the differences in teachers, "You find the dynamic in veteran teachers versus a young teacher, who's done it before, who's willing, and who's rigid and by the book. You learn from that. Some will budge, and some you just manage."

Table 12 represents the responses that emerged from teacher responses from the interview data. The theme of communication has five categories and 36 responses. The most prevalent categories under the theme of communication are special education and general education co-teacher conversations where there was one response from six out of 10 teachers. The second category with 13 responses was special educators and general educators' communications regarding accommodations and differentiation. Regarding communication, teacher 5 stated, "Hey, this is what we're going to be working on today. What are your thoughts on that?" Or, "Hey, these are my thoughts on this. Can we do this the next class?" So it is, it's constantly that communication." Teacher 6 explained how she worked on differentiation with her co-teacher, "Most of it is as it is happening and we will have a conversation while they're

working in pairs. He and I will have a conversation, "Oh, these kids need this, regarding accommodations and differentiation.

Regarding communication, teacher 5 stated, "Hey, this is what we're going to be working on today. What are your thoughts on that?" Or, "Hey, these are my thoughts on this. Can we do this the next class?" So it is, it's constantly that communication." Teacher 6 explained how she worked on differentiation with her co-teacher, "Most of it is as it is happening and we will have a conversation while they're working in pairs. He and I will have a conversation, "Oh, these kids need this or we need to go back to this." It's mostly in the context of the class; we find time to go back and forth."

Table 12

Theme 8: Communication

	Participants										
Category Codes	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	Totals
SE/GE conversations	4	5	1	0	2	1	0	2	0	0	15
SE & GE communication Re: accommodations/differentiation	2	3	0	0	1	1	1	0	1	4	13
One-on-one communication	2	0	1	0	0	0	0	0	0	0	3
Student collaborative conversations	0	0	0	0	0	0	1	2	0	0	3
Opportunities for collaboration	1	1	0	0	0	0	0	1	0	0	2

When asked about the most important aspects of a co-teaching relationship, teacher 6 stated,

> Communication, I think, is one of the most important things. Because we have to communicate for him to be able to understand, what am I teaching, what the lesson plan's going to be, so he can know how we can best support that student or if they need additional support, or even if a particular student is going through a rough time right now

and he has to communicate that to me or this is what we're learning, this how we're learning.

Teacher 1 stated, "I think communication along with trust and respect are the most important. The relationship you have with the co-teacher is very important. You need to understand each other's teaching styles and classroom management. Being able to communicate is key." Teacher 5 reiterated,

> So there's constant communication about, "Hey, this is what we're going to be working on today. What are your thoughts on that?" Or, "Hey, these are my thoughts on this. Can we do this the next class?" So it is, it's constantly that communication.

Triangulation. The data from the PCTS, observations, and interviews were triangulated. The triangulation provided some interesting insights regarding teachers' attitudes, behaviors, and relationships contribute to the success of the co-teaching model? The PCTS data demonstrated that 100% stated that they "strongly agreed" and "agreed" that they worked well together. The observation data and interview data corroborated the survey data. Teachers used "we" and "our" language both in the observations and in the interviews. Teacher 5 stated, "We are a team; we work well together."

Soliciting feedback from each other was a behavior that 90% of the teachers stated that they "agreed" they practiced in their classrooms. This was corroborated by the observation data and the interview data. Teachers were seen speaking to each other, and in two of the classrooms, I observed instruction change from the brief in classroom conversations. Furthermore, in the interviews, teachers 5 and 6 both stated how they communicate during the classroom and change things up depending on what their co-teacher notices, that they have a "flow." The one teacher who "strongly disagreed" was the one classroom where there was little back and forth

conversations between co-teachers. The instruction was lead by the general education teacher and the specialist first sat at the back and took notes, then walked around and helped during small group and individual work time. This was also confirmed in the interview, the general education stated, "he walks around and helps but he doesn't have the content knowledge." The demographic data also shows that this is the first year the teacher has co-taught and she mentioned it in her interview.

All but one of the co-teachers had positive attitudes towards co-teaching, 90% agreed that co-teaching was a worthwhile experience. The classroom observation data and the interview data confirm that most teachers felt it was a worthwhile experience and there was little if any, conflict. The one teacher who "disagreed" was a science teacher in her first year of co-teaching. The interview data were conflicting; on the one hand, she stated that he helped her by walking around and working with students; on the other hand when asked if they collaborated she said, "I think collaboration would be good although we don't have time, and we don't do it. I think it would be better if he had subject area knowledge he doesn't, so it makes it difficult. Co-teaching would be good if the co-teacher had the subject area knowledge like he does in math." She further stated, "Because he teaches more in the math classes."

Behaviors such as (a) sharing classroom responsibilities, (b) behavior management, and (c) communication were corroborated through triangulation. Most of the teachers, 80% agreed that they share classroom responsibilities in the PCTS; the observation data confirmed that teachers were sharing in-classroom responsibilities. One teacher was observed creating a new seating chart, another quickly dealt with behavior, and both of them assisted the general education by handing out paperwork and supplies. The teachers were communicating with each other throughout the observations. The interview data corroborate the survey and observation

data. Teacher 1 explained, "There's constant communication on about, "Hey, this is what we're going to be working on today. What are your thoughts on that? Or hey, these are my thoughts on this, can we do this?"

Research question three (RQ3). *What supports are needed for successful co-teaching in a fully inclusive setting?* Data collection to answer RQ3 included 13 questions from the PCTS, two items from the Co-Teaching Core Competencies Observation Checklist, and three interview questions.

PCTS results. There are 17 questions used from the PCTS that data was collected to answer RQ3. Questions 11 through 17 refer to teacher preparation for collaborative teaching and questions 18a through 22b relate to school-based supports that facilitate collaborative teaching.

Question 11 asked the co-teachers if it was useful to have student teachers place in a collaborative classroom (Figure 18). Both special educators and three general educators, 50% of those surveyed, felt it was "very useful." Four teachers, 40% felt it was "somewhat useful," and 10%, one teacher "did not know."

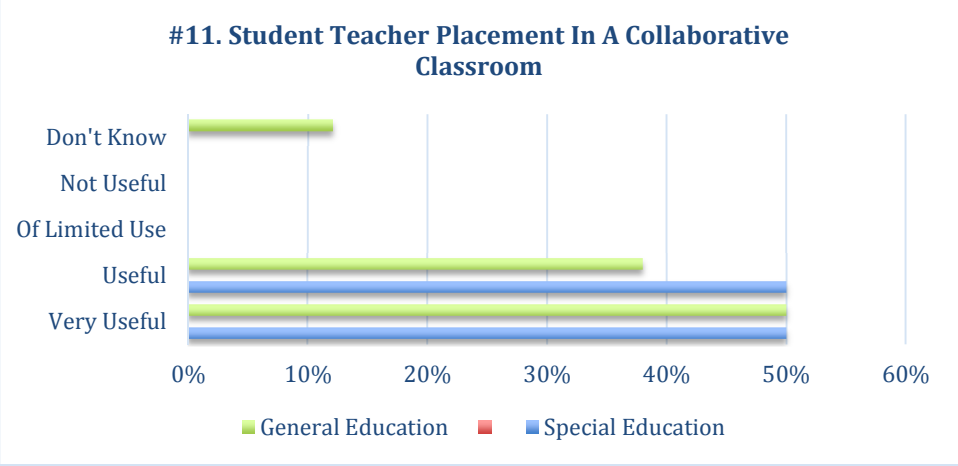

Figure 18. PCTS question #11: Student teaching placement in a collaborative class.

Question 12 inquired whether the co-teachers felt that district in-service presentations on alternative assessments were useful or not (Figure 19). Both special educators and three general

educators, 50%, answered that they felt the presentations on alternative assessments were "very useful." Two general educators, 20%, felt the presentations were "somewhat useful." Another 20%, two general educators, felt they were of "limited use" and one general educator "did not know."

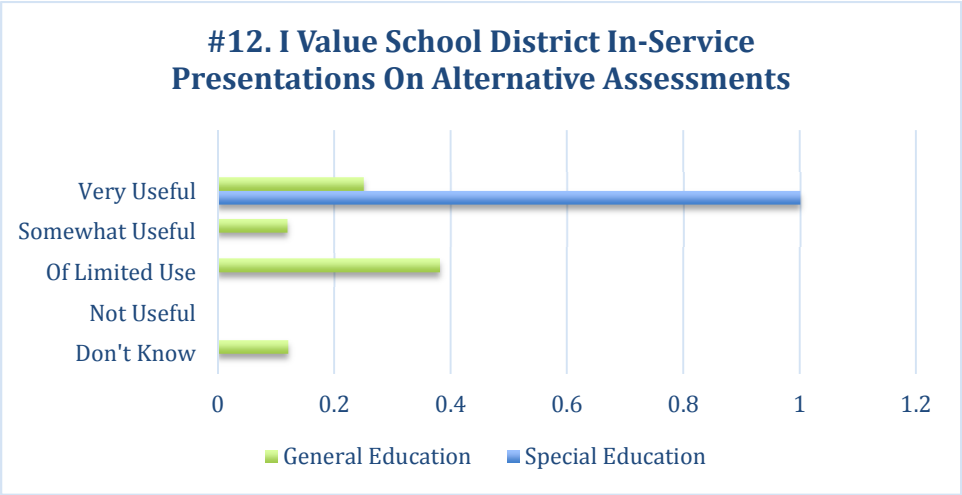

Figure 19. PCTS question #12: School district in-service presentations on alternative assessments.

Question 13 asked teachers whether they felt school district workshops/mini-courses on facilitating collaborative teaching were useful or not (Figure 20). Both special educators and two general educators, 50%, felt that the district workshops/mini-courses on collaborative teaching were "very useful." One general educator, 10%, felt the workshops were "somewhat useful." Three general educators, 30%, felt they were of "limited use" and 10% "did not know."

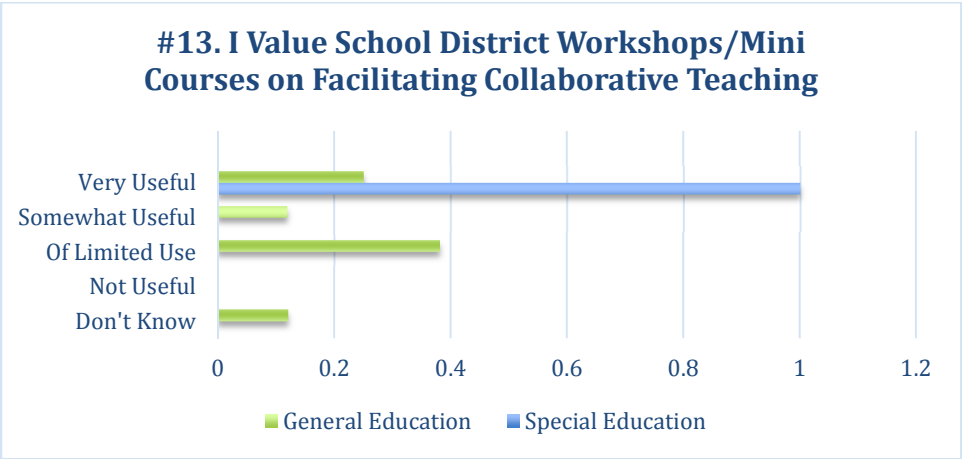

Figure 20. PCTS question #13: School district workshops/mini-courses on facilitating collaborative teaching.

Question 14 inquired whether co-teachers felt that mentoring by an experienced collaborative teacher(s) was useful or not (Figure 21). Both special educators and two general educators, 40%, answered that they felt mentoring by an experienced co-teacher was "very useful." Five general educators, 50%, felt that it was "somewhat useful," and 10% "did not know."

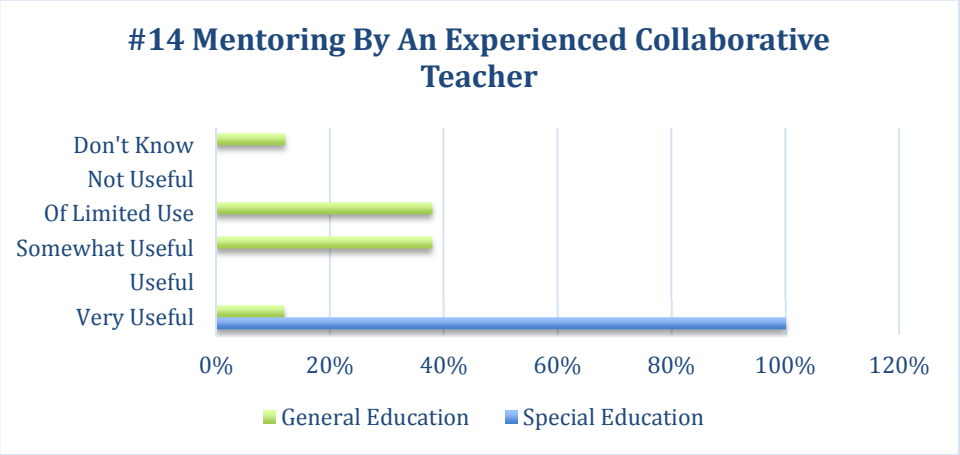

Figure 21. PCTS question #14: Mentoring by an experienced collaborative teacher(s).

Question 15 asked whether co-teachers felt that pre-service courses in collaborative teaching were useful or not (Figure 22). Two special educators and one general educator, 30%, felt that pre-service collaborative teaching courses were "very useful." Of the teachers surveyed, 40%, one special educator, and three general educators felt they were "somewhat useful" and 20% answered that they "did not know."

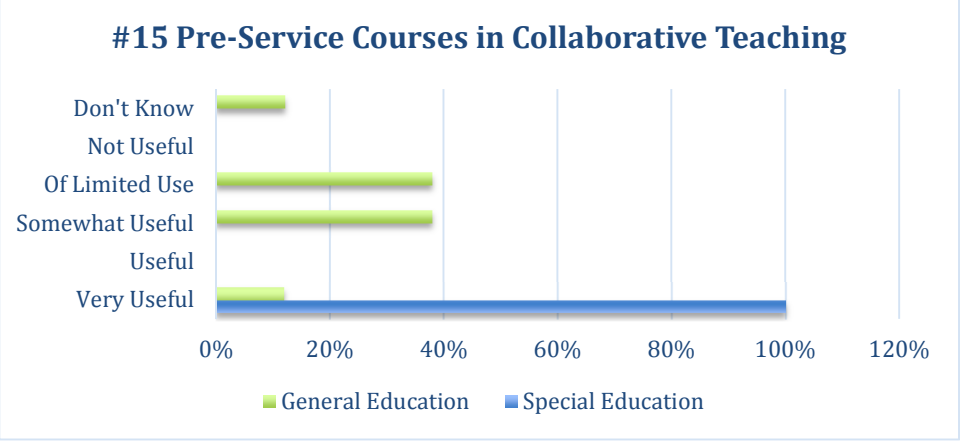

Figure 22. PCTS question #15: Pre-service courses in collaborative teaching.

Question 16 inquired whether co-teachers felt that pre-service special education courses for general education teachers were useful or not (Figure 23). Two special educators and one general educator, 30%, replied that they felt the pre-service special education courses were "very useful." Of the co-teachers surveyed, 30% answered they felt the courses were "somewhat useful." One teacher "did not know" and 30% found them of "limited use."

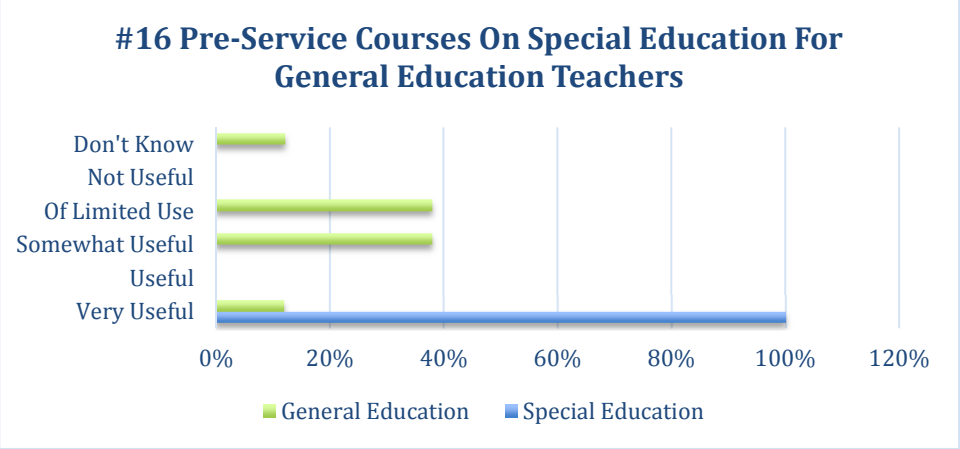

Figure 23. PCTS question #16: Pre -service special education courses for general education teachers.

Question 17 asked whether co-teachers felt that pre-service general education courses for special education teachers were useful or not (Figure 24) One special educator and one general educator, 20% of the teachers, felt that pre-service general education courses were "very useful." Of the teachers surveyed, 50%, one special educator, and four general educators felt that the courses were "somewhat useful." One teacher, 10%, felt that pre-service general education courses for special educators were "not useful" and 20% "did not know."

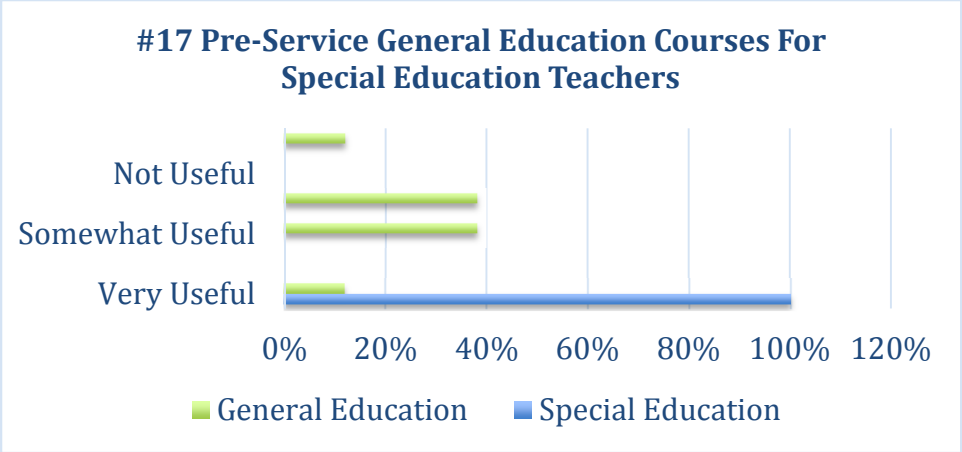

Figure 24. PCTS question #17: Pre -service general education courses for special education teachers.

Question 18a inquired whether co-teachers felt that a provision for scheduled mutual planning time was useful or not (Figure 25). Both special educators and one general educator, 30% of the teachers, felt that a provision for scheduled mutual planning time was "very useful." Three general education teachers, 30%, felt it was somewhat useful. Three teachers, 30%, felt it was of "limited use" and 10% "did not know."

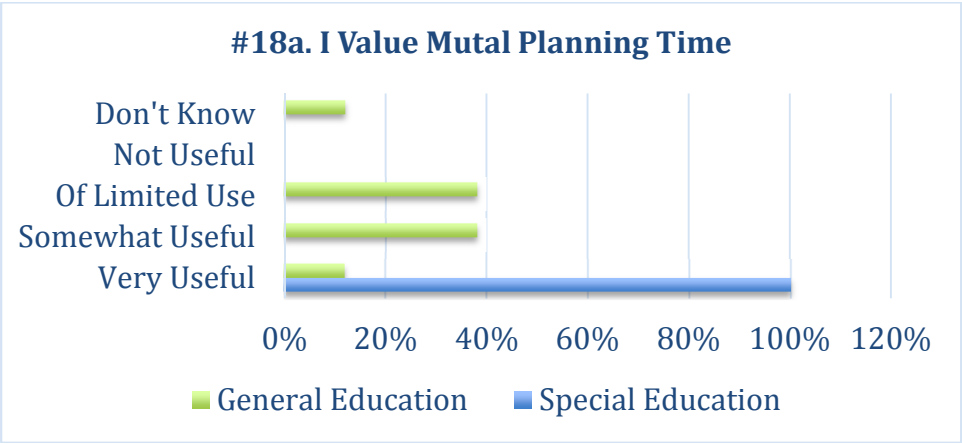

Figure 25. PCTS question #18a: I value mutual planning time.

Question 18b asked whether co-teachers had access to scheduled mutual planning time (Figure 26). Of the teachers surveyed, 20%, one special educator, and one general educator responded that they had "plentiful access." One teacher, 10%, responded he had "some access" to mutual planning time, and 20% responded they had "limited access." Three teachers, 30%,

responded they had “no access” to scheduled mutual planning time, and 20%, one special educator and one general educator “did not know.”

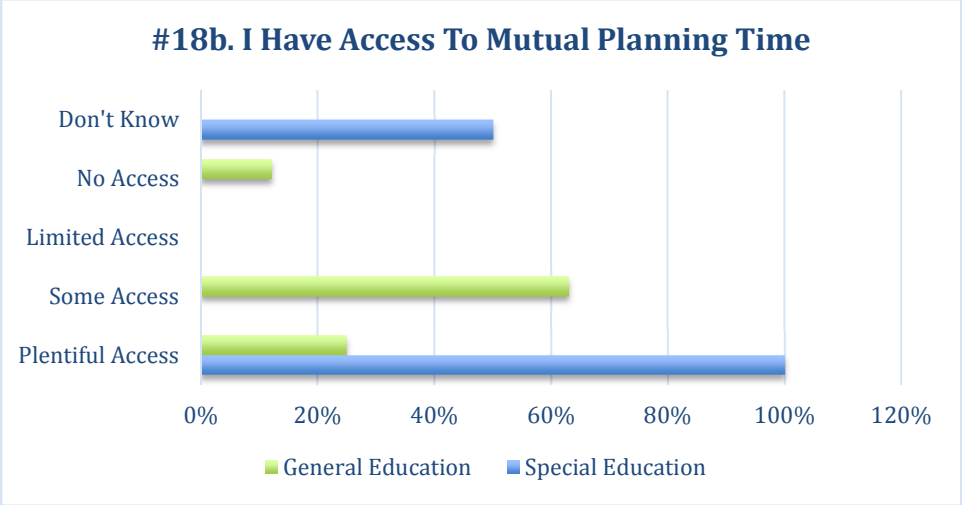

Figure 26. PCTS question #18b: I have access to scheduled mutual planning time.

Question 19a asked whether administrative support of collaboration was useful or not (Figure 27). Two special educators and five general educators, 70%, felt that administrative support of collaboration was “very useful.” Two teachers, 20%, felt administrative support was “somewhat useful,” and 10% felt it was of “limited use.”

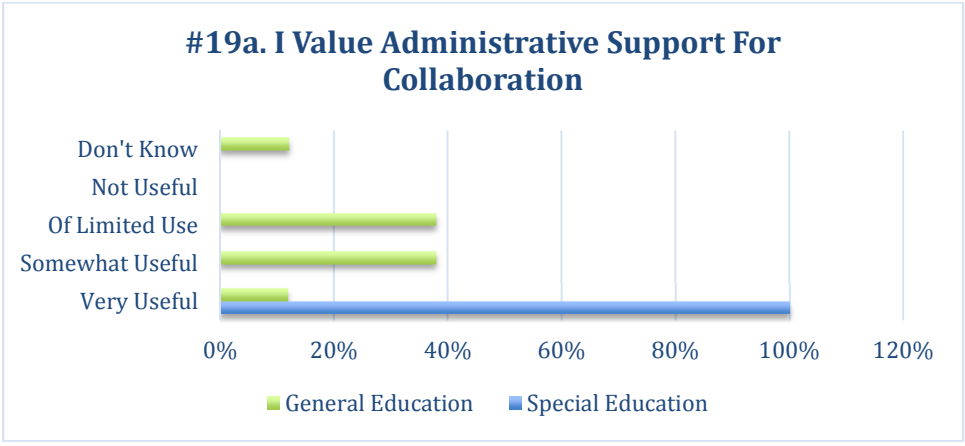

Figure 27. PCTS question #19a: I value administrative support of collaboration.

Question 19b inquired if the co-teacher had access to administrative support (Figure 28). The data demonstrates that 70% of the co-teachers surveyed, two special educators, and five general educators, replied that they had “plentiful access” to administrative support for

collaboration and 20% answered they had some access. Two teachers, 10%, indicated that they had "no access" to administrative support for collaboration.

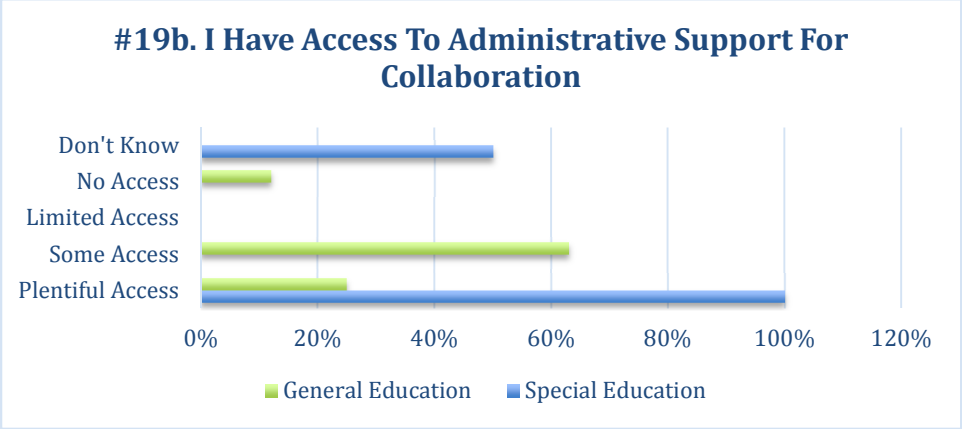

Figure 28. PCTS question #19b: I have access to administrative support for collaboration.

Question 20a asked whether co-teachers believed they should have adequate teaching aids and supplies appropriate to learning levels (Figure 29). Both special educators and four general educators, 60%, answered that they believed it was "very useful" to have adequate teaching aids and supplies. Three teachers, 30%, answered they felt it was "somewhat useful" and 10% believed that adequate teaching aids and supplies were of "limited use."

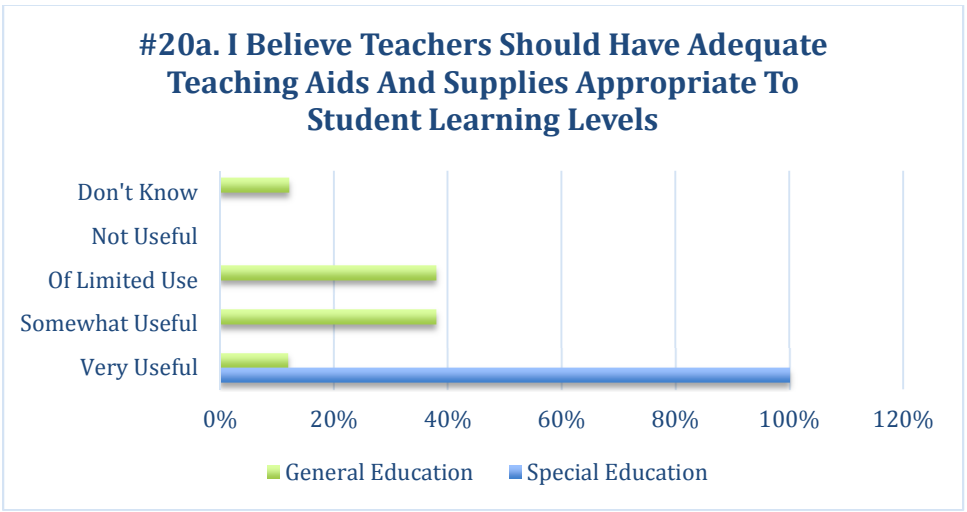

Figure 29. PCTS question #20a: I believe teachers should have adequate teaching aids and supplies appropriate to learning levels.

Question 20b inquired if co-teachers had access to adequate teaching aids and supplies appropriate to learning levels (Figure 30). Of the co-teachers surveyed, 40%, both special educators and two general educators, stated they had "plentiful access" to adequate teaching aids and supplies. Two teachers, 20%, indicated they had "some access" and 20% answered they had "limited access" to adequate teaching aids and supplies. Two teachers, 20%, replied that had "no access" to adequate teaching aids and supplies appropriate to learning levels and 10% stated they did not know.

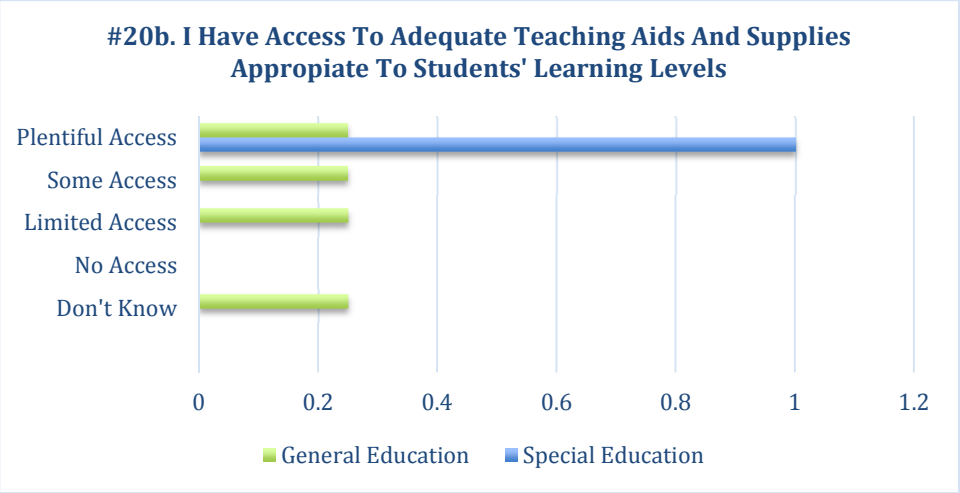

Figure 30. PCTS question #20b: I have access to adequate teaching aids and supplies appropriate to learning levels.

Question 21a asked whether collaborative teachers valued in-service training opportunities (Figure 31). The data demonstrated that 30%, both special educators and one general educator, felt in-service trainings were "very useful" and 30% answered that they were "somewhat useful." 30% indicated that in-service training were of "limited use" and 10% "did not know."

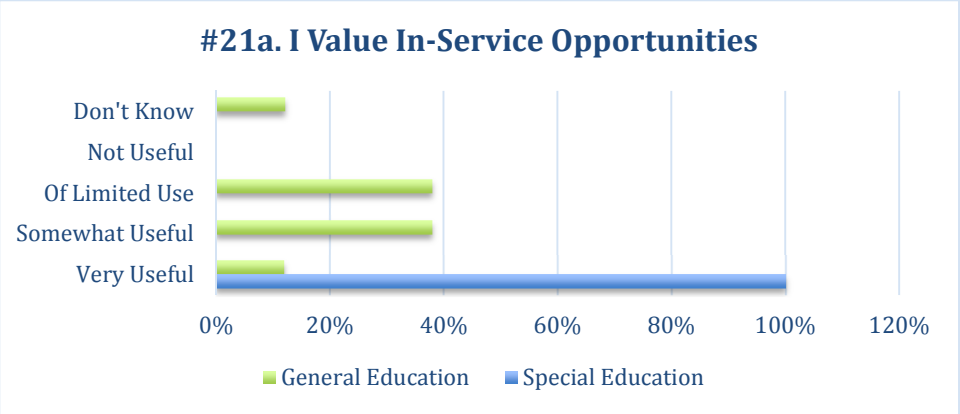

Figure 31. PCTS question #21a: I value in-service training opportunities provided (workshops, etc.)

Question 21b asked whether co-teachers had access to in-service training opportunities (Figure 32). The data indicates that 40% of the co-teachers, two special education teachers, and two general education teachers replied that they had "plentiful access" to in-service training. 20% of those surveyed answered that they had "some access" and 20% had "limited access" to in-service training opportunities. 10% indicated that they had no access to in-service training opportunities and 10% replied that they "did not know."

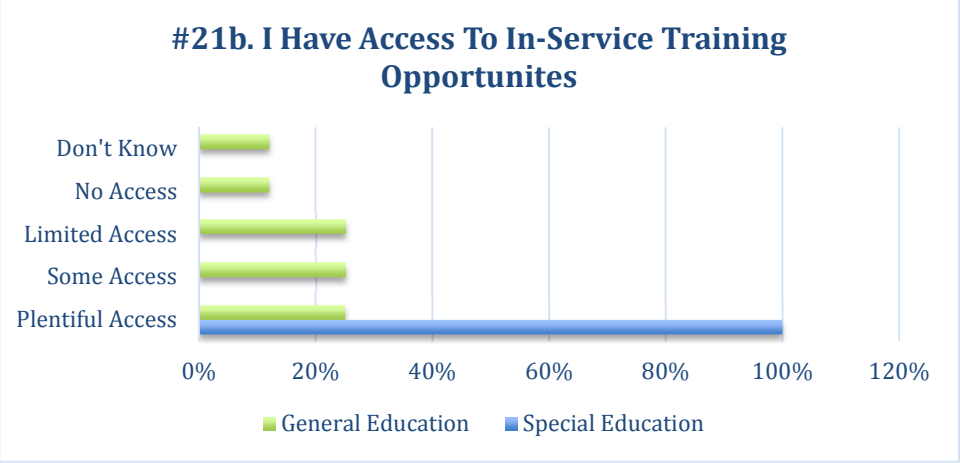

Figure 32. PCTS question #21b: I have access to in-service training opportunities provided (workshops, etc.).

Question 22a asked whether co-teachers valued summer planning time allocated (Figure 33). The data demonstrate that 30%, both special educators and one general educator, felt it was

"very useful" and 30% replied that it was "somewhat useful." Of the teachers surveyed, 30% indicated that summer planning time was of "limited use" and 10% "did not know."

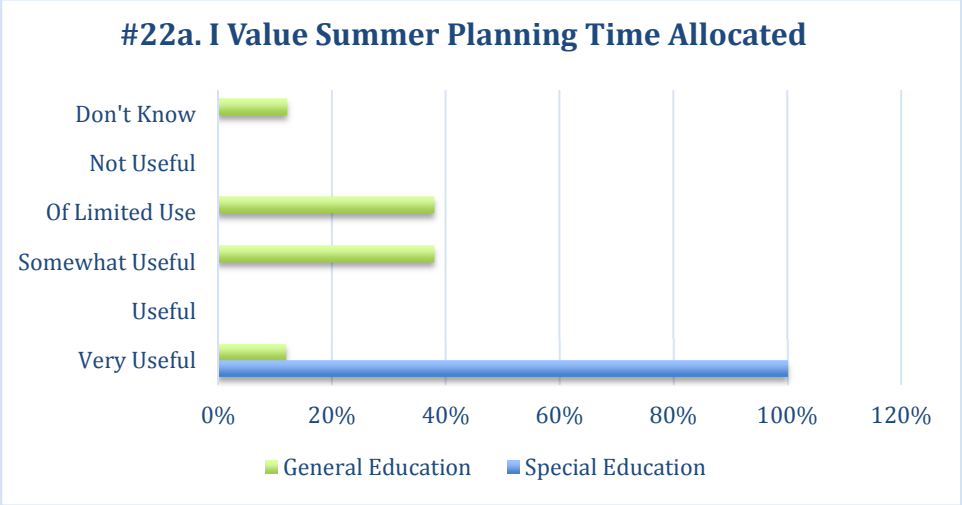

Figure 33. PCTS question #22a: I value allocated summer planning time.

Question 22b inquired whether co-teachers had access to summer planning time allocated (Figure 34). The data indicates that only 10% of the teachers surveyed had "some access" to summer planning time allocated, and 40%, one special educator, and three general educators had "limited access." 20% answered they had "no access" to allocated summer planning time and 30% one special educator and two general educators "did not know."

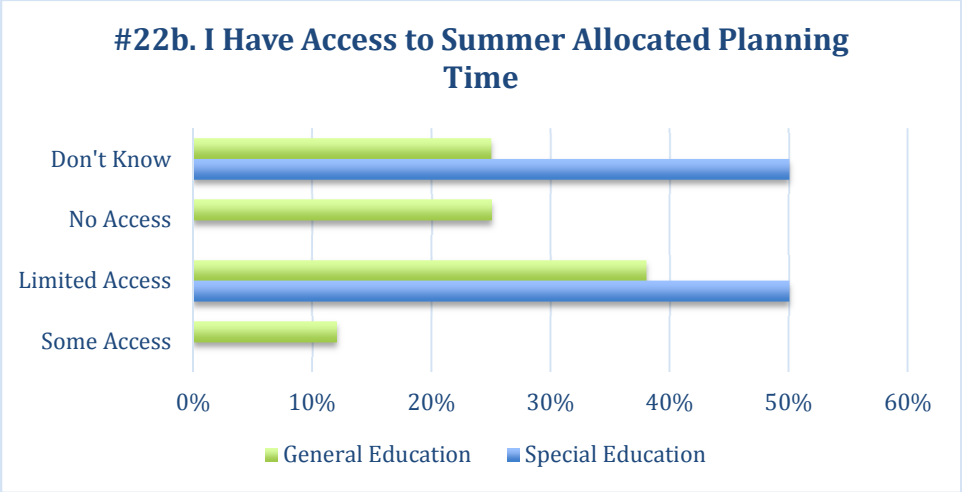

Figure 34. PCTS question #22b: I have access to allocated summer planning time.

Core Competencies Observation Checklist results. There were two items on analyzed on the Co-teaching Core Competencies Observation Checklist to answer RQ3. The minimum, maximum, mode, median, and mean of the checklist items relating to RQ3 are in displayed in Table 13.

The results regarding item 8.8 on the Core Competencies Observation Checklist demonstrates that the mean of the eight classrooms observed was a 2.5 out of a possible maximum score of 3.0. Item 8.8 asked if there was evidence of Universal Design observed in the classroom. In all the classrooms observed, there was evidence of Universal Design, some more than others. In every classroom, multiple modes of instruction were observed. For example, every classroom was using Chromebooks, some students were taking quizzes on them, some were writing answers to questions, and others were reading an instructional article. Most of the classrooms had the daily sequence of the day posted on the board. There were flexible groupings and some classrooms as teachers had students move from whole group to small group. Three of the classrooms gave regular feedback in the form of daily short quizzes. In one classroom there was evidence of multiple ways of completing an assignment, it was posted that student could write a paper, do a video, or a give a PowerPoint presentation.

Table 13

Core Competencies Observation Checklist for Items related to RQ3

Item	Description	Min	Max	Mode	Mdn	Mean
8.8	Class instruction and activities proactively promote multiple modes of representation, engagement and expression (Universal Design for Learning-UDL).	0	3	2	2.5	2.5
8.13	Technology (to include assistive technology) is used to enhance	0	3	3	3	3

Item 8.13 asked if there was technology being used in the classrooms, including assistive technology, to enhance accessibility and learning. The overall score for this item was 3. Every classroom observed scored a 3 in the use of technology to access the curriculum. Technology was abundant at the school site. Students and teachers were using Chromebooks, graphic calculators, document readers, and videos.

Interview results. There were three interview questions that related to RQ3:

1. To enhance your co-teaching program what expertise or training do you think would be useful?
2. How have the co-teaching in-services or professional development/training helped you?
3. What additional supports do you feel are needed to make co-teaching more successful?

Three themes emerged from the data: (a) training, (b) supports, and (c) hindrances/barriers indicating need for support. The theme of training was the most prevalent of the three themes, with a total of six categories and 97 responses (see Table 14).

Table 14

Theme 9: Training

	Participants										
Category Codes	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	Totals
Lack of co-teaching training	6	8	3	2	0	0	1	3	0	2	25
Co-teaching training on CT models/strategies	6	3	3	2	1	1	1	3	1	0	21
Training on different models/strategies of co-teaching	0	4	1	0	2	1	3	2	0	7	20
GE wants training from SE staff	0	0	1	0	1	1	1	1	1	0	6
SE learning from trainings	1	1	0	0	0	0	1	0	0	0	3
Other campuses co-teach programs	2	0	0	0	0	0	0	0	0	0	2

The most prevalent categories were lack of co-teaching training, and the need for co-teaching training is consistent with each other. Eight out of 10 teachers mentioned the lack of co-teaching training and nine out of 10 mentioned the need for professional development in co-teaching. Only half of the teachers surveyed were at the school when it first opened. When the asked what training they received at the beginning, teacher 3 stated,

> We really didn't have much training before we started, but the RSP teacher who used to be the lead was great, she did some training, she explained what it was going to be like. The added bonus was that she was credentialed in English so we were able to truly co-teach like they do in math now.

Teacher 10 explained how she received hands-on training when co-teaching with the special health care students for 2 years; students who have moderate to severe needs. Teacher 10 explained:

> I taught the class, and she just showed me how to make adaptations for all the students. So I learned a lot in that class. I spent 2 years learning how to adapt my curriculum for severe special needs. Okay, hand over hand, eye gaze, buttons. So my third period class today, I have one of the specialized healthcare kids who comes to my third period class, and he has an aid with him, and whatever we're working, I'll walk back there, and I'll be like, "Do this with him," or "Don't do this, but I want it done this way. I can adapt the curriculum now. If I hadn't had that training, frankly he would probably be sitting in the back of the class because I wouldn't know what to do.

She further reiterated how she learned more over time,

> The first year was crazy difficult, and I had no idea what I was doing, and I was giving them kind of dumbed-down work, and then this last year I did some of the same curriculum, but I made it where it was very strategic. I even figured out how to test them.

When asked what type of training would be beneficial, teacher 2 stated:

> Knowing the different options to still make yourself valuable in the classroom, I think, is the biggest thing that I learned was there's like seven different types. If I can find one of those, I'm still being productive and beneficial for those kids in that period. Even if I never stand up in front and do a single thing, but I'm just kind of working behind the scenes, I still think that's beneficial. So I think just learning the different strategies and what it may look like, even if it's not what someone else might think of co-teaching.

Likewise, teacher 8 shared:

> I think for me, sometimes I need to know how to best utilize them sometimes, because I've had different experiences and they pretty much come in and they kind of set the tone for how they will help. But I think if I had a better understanding of what this model should look like, should I have them lead more of the lessons more of the time? Or should I have them just do more of the breakout into smaller groups for specific students? So really that dynamic. Because I think we create our own dynamic, but I don't know for that model, is there a specific one we should be following?

Teacher 5 further explained,

> If there is training, let's say that can model how we're supposed to look at a co-teaching model, I would not turn that down because I'm just kind of like, "Oh, okay." Kind of going with it. We never really had any formal training on co-teaching specifically. At least I haven't.

Teacher number 1 suggested, “Co-teaching and inclusion is the big push in the District, we should be collaborating with other schools, observing each other, talking about what works and what doesn’t.”

When asked what professional development topics or other training they might like to have, teacher 8 suggested, “we might get an article, but to really have someone to really kind of walk you through and explain it, might be helpful for us teachers.” Four of the general educators stated they would like to have more trainings from the special educators at the school site. Teacher 7 said, “I want training in strategies for special education, autism, and behavior, they are really good at it, I get 5 minutes here but maybe mini training once a week?” Teacher 6 suggested, “We have all these different meetings, maybe one of them, once a month, could be for strategies for special education and students with five, you know, which they’re good for all students, but strategies to help in the classroom.” One general education teacher had an idea for training for the special education teachers:

> They need to have access to the same training we get. For example, in our curriculum, like the Pearson m Perspectives, because we use that a lot. Because I didn’t know until this year, they don’t have access to the Pearson myPerspectives. Now I can give him a teacher guide or the book, but he can’t go in himself and see the digital work that we’re doing, so if they had training, they could.

Teacher 1, a special educator replied,

> I like knowing about SPED law and trends in the industry. I think the training that goes with case management so that we actually are in compliance. I mean, for me it’s a lot of administrative things because I don’t feel like these are the areas that we get a lot of training.

He reiterated,

> An opportunity for us to learn about the programming that's available. Now, when I was in my last district, we had a SELPA that was outside of our district. And that SELPA would go out and they would tell us, this is what's happening in the industry right now. These are the things you should not be doing right now.

Table 15 addresses the second most prevalent theme, supports, that emerged from the interview data. There were three categories and 33 responses.

Nine teachers responded that they had administrative support for co-teaching, teacher 2 stated,

> So the admin support has always been 100%. There's never been an issue there. I think the tough thing for them, is being a small school, they have to wear multiple hats, which means they have to do everything in the office, and they have to admin on the special ed side for IEPs and stuff like that.

Table 15

Theme 10: Supports

	Participants										
Category Codes	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	Totals
Administrative support for co-teaching	4	5	1	2	1	0	1	1	1	1	17
technology/video/TV	1	2	0	0	3	2	1	2	1	0	12
Use of SE assistants	0	2	0	1	0	0	0	1	0	0	4

He further explained,

> If I want to send an email out about student feedback and I'm not getting it back, and then I send a second one out, and then I'll CC an administrator, and the administrator sends an email, "Hey that needs to happen today." So we've had that administrative support from day one, as far as I know.

Teacher 4 stated, “We have administrative support wholeheartedly, from the top down, the whole perspective in this District is terrific.” Teacher 10 explained:

> Our prior principal to this year ….I don’t know the principal well enough this year because we have a new principal. He was really a big advocate and huge support for our special ed program, all of our special ed programs on this campus, whether it was the specialized health care kids or the RSP students, but he was a counselor prior to becoming a principal and had experience with IEPs and special ed and worked with special ed. So he came in with, “No, this is how this would work.” So he was very supportive that way. I don’t know about our current principal and how much he knows or doesn’t know, and so for me, the support that I would want from him would be time. I want more time to plan with my co-teacher.

Regarding technology support for collaborative classrooms, one teacher replied, “We have a ton of technology, the document readers, graphic calculators, Chromebooks, and the engineering people they have all sorts of cool stuff.” Another teacher stated, “I’ll sometimes have a TV where I’ll show a video of what we learned, and then I’ll follow up with a lesson to kind of reinforce what they saw on the video.” The art teacher used to co-teach with the healthcare teacher, and she explained how she used technology to for assessment:

> I would ask them a question, and if they used Eye Gaze, there was a frame that she had, and we would put the answers yes or no on the edge of the frame, and then I would put something inside of the frame, and I would say, “Which one of these?” Or, “Is this an example of organic shape?” And they would have to either Eye Gaze to the yes or the no. “Are these the primary colors? Yes or no?” So it had to be yes or no questions because that was easier for them, and then my students who had some movement ability with their

> hands, we had buttons, and one button said yes, and one button said no. So, is this an example of the primary colors? Yes or no?" And they'd have to hit the button to answer, and I did like ten questions, super simple, really basic stuff, and I marked them, and they had a test, and it was really cool to me.

The same teacher now has a student who mainstreams and has an IPad as an Alternative Augmentative Communication device (AAC) to help him communicate with other students. The general education teacher stated how she helps him use technology,

> He has an iPad for speech. I'll have him record it instead of taking notes or, but he has to set it up and do it. I don't let the aid set it up for him. He's a junior in high school he needs to know how to do it."

In regards to special education assistants, teacher 2 explained, "The assistants are sent into the classrooms that have less students, and we go into the classrooms that have more five to six students." Teacher 1 stated,

> There are one-to-one assistants for those students that have the service; otherwise they go into the classrooms based upon students' needs, except for the one assistant who is an artist, I send her into the art class because she can actually do a lot of the work and team-teach more than I ever could.

Table 16 represents the third theme, hindrances/barriers indicating the need for support. This theme has six categories, with 58 responses. The category most mentioned was the special education teachers' caseload. Six out of 10 teachers commented on the special education caseloads.

Table 16

Theme 11: Hindrances/Barriers Indicating Need for Support

	Participants										
Category Codes	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	Totals
SE caseload	3	2	1	0	1	1	0	1	0	0	9
Common planning time	0	1	2	0	0	1	0	0	0	3	7
Change over time	0	2	0	0	0	0	0	0	0	2	4
SE planning time	1	0	0	0	1	0	0	0	0	0	2
SE Provides Accomm/Mods	1	1	0	0	0	0	0	0	0	0	2
SE having access to curriculum	0	0	0	0	0	0	0	1	0	0	1

The special education teachers' caseload had the highest number of responses with half of the teachers making comments. One special educator explained the demands of the special educator:

> We also have the added function of our administrative duties, it becomes just a cluster because we're trying to figure out how am I supposed to get this, get ready for this IEP meeting, and/or this conference, and/or this addendum, and/or this conversation with the behaviors supervisor, and/or this conversation with district personnel about a specific student. And I have to be on top of this content. So, it's a lot of balls in the air when you're doing this model, the push in model. Which is why I think there needs to be a limit to the number of students that are on a caseload if you're doing a push in model for it to be actually be successful. Because I can tell you that when you're actually doing, having done it before, we have more students on our caseload currently than we've ever had.

The other special educator commented,

> It's interesting because we have I think 46 or 48, so around 50 kids on IEPs and RSP, for the two of us. And then we have the two and a half or three and a half aides or whatever we get, and we're being told that that's too many already.

He further reiterated,

> So they're trying to pull things from us as it is. I understand where they're at because it's just a thing, but realistically if you're trying to get us to keep the program up of this co-teaching, going in, going in, going in, then you have to give us supports to support the kids. Otherwise, when we're doing that co-teaching, if you don't give us that support, then how can we do both of those at the same time? It's not possible.

Teacher 3 stated, "We used to have three co-teachers and then the co-teachers had more time. They could meet with us more; now they are running from place to place." Teacher 1 further stated:

> We lost a whole teacher. And it's made a tremendous impact on our service delivery model. Because we can't, we don't have the flexibility of doing all of those things I just mentioned to you when there are only two of us. And we have over 20 students on our caseload. Before you know, your max is 28 by law, correct? But when you're doing a certain model, that model needs to also be respected, in the sense that in order to do this, you can't have, you don't have the capacity for 28 students on your caseload. You just don't. Or you just become a case manager, which means you cannot be focused on administering a bunch of content because you have all of these administrative things to do for students.

The co-teaching model has changed over time, one of the special educators explained,

> So the first year was one. So it was one teacher with one grade level, which I'm sure was smooth. Then it was one teacher with two grade levels, so I'm sure it was a little bit haywire. Then the next year, we had three teachers and three grade levels, where we each had our own grade level, and we stayed with it. And that was pure and smooth, simple,

> no problem. Then we got a fourth-grade level but not a fourth teacher. So we kind of mixed a little bit. And then this year, now there's four grade levels and two teachers. So we're both mixed in two different grade levels. So it's not as clear cut as it has been, but because of our numbers, we don't need an extra teacher. So they've said, "Boom, make it work."

Teacher 3, a general education teacher stated, "It's just the two covering everything. They're overworked. It's hard with the caseload they have, making sure all the students' needs are met with one less person." Teacher number 1 stated:

> So I've never had as many IEP meetings, and we're just in October. I've had more, almost as many meetings in this one month with just addendums from rewriting goals and accommodations that came from the middle school setting that was inappropriate for the high school setting, so that we could be in compliance, administrative compliance, with our IEPs. So it's a lot of that goes into this process.

Teacher 1 explained,

> If I was in the pullout model, I would be sitting in my room and may have more time to complete the administrative work, and I wouldn't have to worry about learning all the content; however it is not what is best for the kids. During push-in even if I don't know the content I can help, and the students are getting a high level of academics.

When asked about planning time, teacher number 7 said "If I have something I want the co-teacher to do, we do it before class starts. Five minutes. This is what we're doing. Will you do this piece?" Teacher number 10 stated, "I would like to have some time in the summer before school starts to go over things." Teacher number 3 replied, "They are just so busy, we have conference periods that are the same; however, they are usually helping kids or in IEPs."

Triangulation. Triangulation of the survey, observation, and interview data corroborated and conflicted the evidence for RQ3. The observation data demonstrated that 90% of the teachers both valued and felt they had adequate teaching aids and supplies appropriate to students learning levels. The observation data showed that there was technology in every classroom being used on a daily basis and that *universal design* was in every room. In the interview data, teachers spoke to having and using technology. Teacher 3 stated, "I use the TV video lessons to introduce a subject and students use their Chromebooks daily."

The survey data for administrative support indicated that 90% of the co-teachers valued administrative support, yet when asked if they have it 20% stated, "no access." This is interesting because the interview data conflicts with this statement. Every teacher stated that they had administrative support. Only one teacher stated, "I don't know the new principal that well yet, but the previous one was very supportive." Both special educators stated he was supportive. One teacher even stated, "100%, we have 100% support."

The survey data for planning time was divided with half of the teachers wanting daily planning time and the other half stating it was "not useful" or of "limited use." The interview data corroborated this information. Teacher 3 stated, "Daily planning time would be too much, however, weekly would be good." Summer planning time was another question in the survey. Half of the teachers did not have access or did not know; 40 % replied it was of "limited use." One teacher answered that it was useful. In the interviews two teachers mentioned wanting summer planning time to plan with their co-teachers.

Training was the one area that there was a large amount of data. Seventy percent stated that pre-service training was "useful" however, the interview data indicates that most of the co-

teachers, 70%, did not have pre-service training. The interview data also indicates that 90% of the teachers want training on co-teaching.

Summary

Chapter 4 discussed the findings in relation to the three research questions. Each question reported the results from the PCTS, the CTSS Core Competencies Observation Checklist, and the Interview data. Then the data for each research question was triangulated. For research question one regarding what structures and programs contribute to the co-teaching program the data showed that most of the teachers shared feedback and classroom responsibilities, had access to adequate teaching aids, supplies, and technology, whole group and small group work in all classrooms, curriculum supported collaboration and small group work, and this was confirmed in the observations and in the interviews.

Research question two was regarding attitudes, relationships, and behaviors contribute to successful co-teaching. The triangulation of the data showed that overall the co-teachers worked well together, felt that co-teaching had improved their practice, that co-teaching was a worthwhile experience, that they regularly solicited feedback from each other and benefited from it, and that they shared classroom responsibilities.

Research question three was regarding what supports contribute to co-teaching. The triangulation of the data showed that the majority of the teachers felt they had administrative support, had adequate supplies, materials, and technology. Training was the one area that all teachers stated they wanted more training in co-teaching and the general educators also wanted more training in special education strategies.

Chapter 5: Discussion

This chapter explores the results presented in Chapter 4 and discusses the key findings identified through the three-phased data collection of surveys, observations, and teacher interviews. Findings are discussed as they pertain to the three research questions. After the discussion of the findings, conclusions, and recommendations for policy and practice are presented. The chapter concludes with recommendations for future research and additional research questions for examination.

There are three purposes of this case study. The first purpose of this case study is to determine what structures and programs contribute to successful co-teaching. The second purpose is to explore the fundamental attitudes, practices, and relationships that contribute to successful co-teaching partnerships in purposefully selected high-performing urban high school setting in Southern California. The third purpose is to discover what supports, are needed to assist schools in improving their co-teaching practices. The school chosen is a California Honor Role school that scored above both district and state in English Language Arts, math, and science from the 2015-2016 school year through the 2017-2019 school year. This case study will provide data regarding the practices, relationships, attitudes, structures, and programs are factors in successful co-teaching, and what supports are needed to assist schools in improving their co-teaching practices.

The following research questions guided this dissertation study. The research was conducted at a purposefully selected high-performing socioeconomically disadvantaged urban high school in Southern California. The research explored what co-teachers reported and the researcher observed regarding:

1. What structures and programs contribute to the success of the co-teaching model within a fully inclusive setting?
2. What attitudes, behaviors, and relationships contribute to the success of the co-teaching model?
3. What supports are needed for successful co-teaching in a fully inclusive setting?

This case study utilized a single case study methodology with a qualitative approach. There was three phases of data collection: (a) survey, (b) observation, (c) interview. The first phase was a PCTS (Austin, 2001) that the participants took online via survey monkey. The second phase was classroom observations using the Core Competencies Observation Checklist (Murawaski & Lochner, 2018). The third phase was one-on-one semi-structured interviews using an original instrument developed by the researcher.

The Perceptions of Co-teaching Survey (PCTS) had 23 questions, and all eight co-teacher answered all the questions online via survey monkey. Observations were conducted over 3 weeks of all eight classrooms. One-on-one semi-structured interviews were conducted for over two weeks.

Discussion of Key Findings

Research question one. In response to question 1, the triangulation of the data indicates both common structures that improve co-teaching and some unique structures and programs special to the school studied.

Small school leads to a sense of community and enhances collaboration. The findings show that the small school format and focus on collaboration and relationships is a factor in a successful co-teaching program. The school was first opened in 2014 and is a school with three pathways: (a) engineering, (b) criminal justice, and (c) health medical. The resource specialist

program is all push-in services through co-teaching. There is a program on the campus for medical students with moderate to severe needs. These students are often seen mainstreaming into the general education classrooms. All students with mild to moderate needs are in general education.

The school is a brand new *state of the art* high school fully equipped with technology in every classroom. There are specialized labs for different pathways. Groups of classrooms are set up per each pathway. The school is set up for collaboration; in between each set of classrooms, there is large space that is carpeted with tables and comfortable chairs for students to meet and teachers to hold lessons. One day, the researcher observed *moot court* taking place in one of the common areas.

The atmosphere at the school is very positive from the minute you step on campus. From the front office staff, the custodial staff, the teachers, support the administration, everyone is smiling, friendly, and helpful. Every participant was excited to be part of the study. They were proud of their instruction. Only two of the general educators knew what day the researcher was coming ahead of time. This led to more accurate research on what happens in the classroom. Every teacher was very cordial and seemed to be pleased with having someone watch them instructing. During their interviews they all spoke to how special the school was. Their love of the profession was evident. All the teachers observed seemed to know all their students. They could give a student a look or lean over and say something, and the student would quickly get back on task. One teacher exclaimed, "I'm so happy to be back in the classroom! I'd tried to be an administrator, spent 2 years at it, nope not for me. I ran back." In the classroom observation it was also apparent that he enjoyed teaching. His enthusiasm, the flow of the classroom

instruction, and how he spoke with the co-teacher and students were infectious. The enthusiasm for teaching and working with students was observed in all the co-teaching classrooms.

The school vision and explanation of the school on their website speak to team collaboration, hands-on real-world activities, and gauging student learning through collaborative hands-on projects. There was evidence of this practice in every classroom. Every classroom had small group instruction. One classroom had a short lecture, then showed a documentary, then moved into small group collaborative conversations. Another class had small group conversations, then practiced for a share out in the form of a skit, then performed the skit.

Since it is a small school, all the teachers know each other, especially the two special educators. While the researcher was sitting in the common area, the camaraderie amongst teachers, students to students, and student to teacher were observed. Additionally, special educators are well respected. The findings show in both the surveys and interviews that the special educators were well-liked and respected. The sense of community was very evident and came through in the data.

Special educators staying with students for all 4 years of high school. The findings show that the following students for 4 years is beneficial to students and educators. A unique structure of this school site is the way the co-teaching program is structured. The special education teachers follow the students for all 4 years of their high school career. This is advantageous for special education students. The observation and interview data demonstrated that the special educators had in-depth knowledge of their students, the teachers, and individual general education teaching practices. Additionally, it is beneficial for the general education students because there is an adult who had been with their class the entire 4 years. Both special educators commented on how general education students often come to them for advice.

The one downfall is for the special education teacher. Due to the class schedules on their caseload, one teacher is co-teaching in content areas where he is not comfortable and does not necessarily enjoy it. He stated, "This semester I don't have any classes that I can actually co-teach in it's all one teach one assist….I miss teaching." A second downfall is that the teacher who has ninth grade has extra work the first semester of school due to extra IEPs. The one special educator stated, "I've spent all of October in IEPs, fixing all the middle school IEPs." This also made it difficult to observe him in his collaborative classrooms because he had so many IEPs.

Additionally, this causes issues with general education co-teachers because IEP meetings often go over an hour. This teacher did state, "I have had many contentious IEPs these 2 weeks. I apologize, most of them went over the time we had scheduled."

The two special educators, even with the downside that affects them, stated, "Co-teaching and push-in is the best way for students, teachers, support staff, and admiration."

Consistent team meetings. The findings show that structured meetings lead to higher levels of collaboration. Another unique characteristic of the school site studied is the scheduled meetings, which assist in the school's goal of collaboration. The observation and interview data showed that there are three consistently scheduled meetings for teachers to collaborate and confer: (a) department meetings, (b) pathway meetings, and (c) grade level meetings. The department meetings are for same content area teachers. Pathway meetings are for the teachers in each of the three pathways, and grade-level meetings are per grade level. The interview data demonstrated that the set meetings were beneficial to team planning. One special educator stated, "Yes, we have pathway, and grade-level meetings that are helpful because we can collaborate with the teachers and know what is expected of the students."

Scheduled planning time is a structure that the research has found to be a critical factor in successful co-teaching (Austin, 2001). The interview data showed that this year they changed many teachers' schedules to have the last period of the day for conference period. This was so students could come in for tutoring or meet with their teachers. Also, it was time set up for co-teachers to meet. Common planning time with the co-teachers, however, did not come to fruition due to the high demand on the co-teachers time. The triangulation of the data demonstrated that the co-teachers are in classrooms for three out of the four classroom periods a day.

Furthermore, they are all different subject areas with different teachers. Due to their high caseload, IEP meetings, meetings with parents, developing IEPs, and tutoring, their conference periods fill up, and they have little time in their schedules if any. Every 30-minute lunch period observed, the special educators were simultaneously eating and working on their computer. Similar to Keefe and Moore (2004), planning with the co-teacher happens right before class time, and as one teacher stated, "We plan on the fly, as it is happening."

Curriculum. Research over the past 30 years has demonstrated one of the factors to successful co-teaching is the curriculum (Baker, 1994; Bennet et al., 1997; Lipsky & Garner, 1996). The findings from the observational and interview data indicate that the curriculum plays a part in the success of the students. The curriculum is based on the state content standards and is A-G approved with rigor. Bateman and Bateman (2001) discovered that one of the factors to higher achievement in an inclusive setting is that the curriculum is not watered down.

One teacher stated, "The curriculum is geared towards gradual release;" another stated, "Pearson has an online component and online data to assist the teachers." Furthermore, the observations of the instructional time showed almost every minute accounted for in each

classroom. When asked about groupings, one teacher stated, "Mainly small group, it is our school focus, and the curriculum is geared towards small group."

Student groupings. Research has shown that cooperative groupings, individualized instruction, peer role models, teacher collaboration, and qualified assistance in the classroom lead to higher student achievement (Ainscow & Ceasar, 2006: Sindilar et al., 2006; Weiner 2003). The findings show that student groupings are a factor in a successful co-teaching relationship. Additionally, consistent with the literature the more experience one has with co-teaching and the longer the partnership, the more successful (Cook & Friend, 1995).

The observational and interview data showed that small groups were the most prevalent grouping in all the classrooms observed. Students were grouped at tables and in every classroom. Teachers gave them strategic questions facilitating collaborative conversations. In one classroom they planned a skit and performed it. Two teachers did whole group lessons, but they only lasted approximately 20 minutes before moving into small group work. The interview data had varying responses. Six out of the eight teachers stated they did a variation of the small, whole group and individual with more time in small groups. Two of the teachers stated, "I do whole group and individual."

Similar to the literature, the main models of co-teaching observed in five out of the eight classrooms, were one teach, or one teach, one observes (Dieker & Murawaski, 2008; Hang & Rabren, 2009). Consistent with the literature, the three classrooms other co-teaching models such as team-teaching and station teaching were classrooms that had co-taught for 3-5 years and in which the specialist had expertise. Cook and Friend (1995) stated that in the first year most teachers are at the one teach, one assist, or one teach, one observe models and within 3-5 years move into the other models of co-teaching.

Two adults in the classroom. The findings demonstrate that six out of 10 teachers felt that having two teachers in the classroom was a benefit to all the students. One teacher regarding co-teaching stated, "I can overall see how it does make a big improvement on the student's learning because they that extra set of eyes and ears and knowledge to go to instead of it just being me."

The observation data indicated that both co-teachers were helping all students in all the classrooms. The literature states that students without disabilities often struggle and need accommodations for academics and behavior (Koher & Evans, 2006; Magiera et al., 2005). One general educator stated, "My general ed kids sometimes need more help than the students with IEPS." She further reiterated, "He helps to break down and clarify the work so all students can understand, he really has a talent."

Research question two. In response to question two, triangulation of the survey, observation, and interview data validated that relationships, mutual trust, and respect, positive attitudes and behaviors, contribute to successful co-teaching.

Relationships. The findings show that relationships are a key factor in the success of the co-teaching program in this study. Of the teachers surveyed, 90% stated they "agreed" and "strongly agreed" that they solicit each other's feedback and benefit from it. This was confirmed in the observations and the interviews. All 10 of the teachers, 100% mentioned that relationship was important in a co-teaching partnership. Eight out of 10 "strongly agreed" that they worked well with their co-teaching, and two "agreed." The observational data further confirmed the strong relationships as did the interview data. One teacher stated, "Relationships are the most important; he gets me; we work well together." These findings are consistent with the literature

that good co-teaching relationship is a critical factor in a collaborative classroom (Isherwood & Barger-Anderson, 2008; Walther-Thomas, 1997).

The special educator's attitude, personality, and knowledge play a key factor in the success of co-teaching. Since special educators work with three to five teachers, they need to be able to work with multiple personalities and teaching philosophies. The survey data also showed that all of the teachers agreed and strongly agreed they worked very well together. Additionally, in five out of eight of the classrooms, the general education teacher made a point to come over to me and say something nice about the special educator. One teacher said, "He's great; he reminds me to slow down." Another said, "He makes the class so much fun, the kids, and I love him." In many of the interviews, the general education teachers not only stated how much knowledge the special educators had, they also spoke about how the special education teachers had too much work. One teacher stated, "We have the same style of teaching; it works well." Kohler-Evans (2006) found that analogous teaching styles were important in successful co-teaching relationships.

Trust and respect. The findings demonstrate that there is a high level of trust and respect between the co-teachers at the school-site studied. Mutual respect is one of the cornerstones to successful teaching (Isherwood & Barger-Anderson, 2008; Kohler-Evans, 2006). Eight out of 10 teachers agreed that they shared classroom instruction, regularly offered feedback, and six out of 10 had access to modifying classroom configurations. Interesting to note, sharing the instruction was only observed in three classrooms; however, the co-teachers were assisting all students, and in one classroom the co-teacher was rearranging the seating chart due to students' behaviors. As one co-teacher stated, "I don't just let anyone rearrange student seating; there has to be trust and respect." One general education co-teacher stated, "I trust his knowledge, we have a flow, he is

really good and breaking things down. I just trust his expertise." Another teacher stated, "if you don't trust the person that you're teaching, you're going to second-guess them and it's going to show in the classroom. It comes out."

Positive attitudes and behavior. The findings show that co-teachers' positive attitudes are important for a successful co-teaching relations. Throughout the literature on co-teaching, teachers' attitudes towards inclusion are the most important factor (Ainscow, 2000; Kugglemass, 2006; Sacks & Watnick, 2006). The PCTS data indicated that all of the co-teachers work well together and 80% stated that they "agreed" or "strongly agreed" that that co-teaching has improved their practice. Additionally it should be noted that the only teacher who "disagreed" has only been co-teaching for 1 year and is in a content area that the special educators do not have expertise. Through the interview data, however, she is enthusiastic and stated, "I would like more training, training on how to work better with my co-teacher." Furthermore, the data confirms that the longer the teachers co-teach, the more proficient they become.

According to Kohler-Evans (2006), the ability to share responsibility and sharing responsibility is critical in a successful co-teaching relationship. Sharing the work such as behavior management, contacting parents, grading, and so forth helps ease the burdens and builds the co-teaching relationship (Kugglemass, 2006). Eight out of the 10 teachers surveyed "agreed or "strongly agreed" that they shared classroom responsibilities. During the observations co-teacher was seen writing up seating charts, grading quizzes, and working with the teacher to hand out materials. Interestingly, however, not surprising, the interview shows that the one responsibility that all the teachers agree on is sharing the management of behavior. One special education teacher stated, "If there is behavior, I take care of it so she can keep teaching the content, sometimes she doesn't even realize." A general education teacher stated,

"Sometimes he is teaching, and I may take care of behavior other times I am teaching, and he takes care of it. It's all about keeping the instruction going."

Research question three. In response to question three, triangulation of the data indicates supports such as (a) training/professional development, (b) administrative support, (c) time, and (d) lower caseloads are factors in maintaining a successful co-teaching program. Research states a common factor throughout the research was that all the schools with positive outcomes for students in inclusion had the necessary support in the general education classroom for students with disabilities (Burstein et al., 2004; Giametti-May, 2009; Peetsma et al., 2001; Rea et al., 2002).

Training on co-teaching. The findings show that there is a lack of co-teaching training at the school site. This is consistent with the data for the past 30 years (Burstein et al., 2004; Vaughn et al., 1998; Villa & Thousand, 2005). The survey data showed that only 30% of the teachers have access to in-service training, yet 80% value them. There was conflicting data regarding pre-service training on collaborative teaching 90% said it was "useful" and "somewhat useful;" however, when interviewed only 40% had pre-service training on collaboration.

Furthermore, 70% of the teachers found the pre-service training for general education teachers to be "useful" or "somewhat useful," yet in their interviews eight out of 10 said they were of limited use or not useful. All of the general educators stated they wanted more training in special education and co-teaching strategies. Four out of the 10 teachers suggested that some of the scheduled meeting times could be set aside for training on special education. One of the teachers with the most experience, 21 years, spoke to how she is always going to conferences to learn more about new technology and the latest teaching techniques. She stated, "The RSP teachers are full of information; I get 5-minute mini-lessons here and there, but if they could give

some ongoing training it would be fantastic; everything they teach me is great, I really learn from them." One special educator suggested teaming up with other schools and observing each other's co-teaching practices.

Administrative support. The findings show that there is support from the school site and district administration for co-teaching. Triangulation of the survey, observation, and interview demonstrated a high level of administrative support for the program. The survey data showed that 90% valued administrative support for co-teaching, and 80% had access to administrative support. Interview data corroborated the survey data; teachers said things like, "There is 100% support from the administration," "The principal has many hats, but he is there for us." One teacher even commented that she felt supported from the top of the district down. In line with the research, administrative support and collaboration are powerful predictors of positive attitudes (Villa et al., 1996)

Smaller caseload. The findings show that caseloads need to be smaller for successful co-teaching. The observation and interview data revealed that the special educators had little or no time to meet with their co-teaching counterparts. Furthermore, there were three co-teachers for the past 2 years, and now the two special educators are each responsible for two grade levels. The data in this study correlate with recent research regarding the need for smaller caseloads for co-teaching (Bryant-Davis et al., 2012; Hang & Rabren, 2009). Teacher 1 stated, "We are always meeting on the fly." General education teachers said, "In some classes, I have far too many students up to 37 in a classroom." These findings are similar to previous research findings. (Austin, 2001; Keefe & Moore, 2004).

Conclusions

There are four conclusions that can be drawn from the data that were compiled in regards to the three research questions. Data was collected from (a) surveys, (b) observations, and (c) interviews. After the data was collected, it was triangulated and compared with current research to validate the findings.

Relationships and attitudes. The findings of this study conclude that mutual trust and respect and a positive attitude in the co-teaching relationship are the most important factors in a successful co-teaching partnership.

Contrary to Kohler-Evans (2006) and Keefe and Moore (2004), planning time was not the most imperative factor. Consistent with recent research, this study found that factors critical to a successful co-teaching partnership were (a) mutual trust and respect, (b) positive working relationship (c) shared responsibilities, (d) communication, and (e) administrative support. The survey, observation, interview data all corroborated that relationships and a sense of community were what made program at the school successful. The school is set up for collaboration with teachers working in pathway teams since its' inception.

Supports. The findings in this study conclude that supports such as two teachers in the classroom, adequate supplies, and administrative support are critical factors in the success of the co-teaching program. Similar to findings by Magiera et al. (2005), the general education teachers in this study indicated that they feel all the students benefit from an extra set of eyes and ears in the classroom. Additionally, teachers stated that there is full administrative support for the program from the top of the district down to the school. Eight out of the 10 teachers answered they agreed they had access to administration. Also, 80% mentioned that they had full administrative support in the interviews.

Time. The findings show that quality co-teaching takes time. Furthermore, not all 6 of the co-teaching models: (a) one teach, one observe, (b) one teach, one assist, (c) parallel teaching, (d) team teaching, (e) station teaching, and (f) alternative teaching need to be happening in every classroom for there to be quality instruction and successful collaborative teaching. Recent research states that quality co-teaching takes time, and in the first year most co-teachers are using the one teach, one assist, or the one teach, one observe model (Friend, 2008; Murawaski & Lochner, 2018).

The findings in this study correlate with the literature. The three classrooms observed that fell in the *master* range according to the CTSS Core Competencies Observation Checklist have been working together for at least 3 years. One of the special education teachers stated: "At first it was difficult and we had to work at it." Congruent with the literature, the classrooms that fell in the emerging and developing range on the checklist are the partners that have been co-teaching together 1-2 years. Both the general education teachers and the special education teachers stated that at first it was difficult and they had to work at it. Similar to the findings of Mageria et al. (2005), the general education teacher was the primary teacher and the special ed teacher explicitly taught the processes to help students understand math in both of the math programs.

Furthermore, in other classrooms where the special educators were not credentialed to teach the content areas or comfortable to teach, they purposefully chose strategies to help students in need. For example, in the AP classes the special educator would take notes and follow along with lessons, assisting students with their executive functioning needs. In other classrooms, such as the Spanish class, the special educator participated in activities helping to lower the affective filter for the students learning a new language.

Training. The findings in this study conclude that training is a critical need for co-teachers. All 10 of the 10 teachers mentioned the need for special education and co-teaching training. Many of the general educators wanted training on the different types of co-teaching and how to better utilize their time with the co-teachers. The need for ongoing training directly correlates with the research over the past 40 years (Isherwood & Barger-Anderson, 2008; Santoli et al., 2008; Sindelar et al., 2019; Wang & Baker, 1985).

Recommendations for Policy and Practice

The findings of this study support nine policy and practice recommendations. The first one involves policies on staffing and supports for the special educator. The next five refer to training, university coursework, and necessary credentials to improve teaching practices at the school site and teacher preparation. The last two are about planning time.

Lower caseloads for special education co-teachers. One policy recommendation is to lower the caseloads for special education teachers who are co-teaching at a high school site. High school co-teachers are teaching in multiple classrooms in multiple content areas. Co-teachers in this study worked with five to six teachers. When co-teachers are pushing into a classroom they have many different personalities and high-level content areas to understand. The teachers stated that IEP meetings are becoming more contentious and taking more time. Another recommendation would be to pay them extra for the administrative duties to work on them after or before school and give them flex time. There is a nationwide shortage of special educators, and they have a very high attrition rate. If districts do not find ways to lower their caseloads and duties they will continue to leave the profession.

Pre-service and in-service training in co-teaching best practices. A second policy recommendation is for credentialing programs both at universities and in school districts to have

at the minimum one semester of co-teaching training. Co-teaching is rapidly becoming a requirement at the high school level. It has been proven that systemic quality training and pre-service training improves the outcomes for both students and teachers in a co-teaching program.

Required university coursework for general educators. Currently, the requirements for a general education credential requires minimal special education training. Many programs have a special education expert come in for one class period to give an overview of special education. With the rise in autism, behavior, and mental issues for students, another policy recommendation would be for all general education teachers at a minimum to have one semester of training on behavior, one semester in autism, and one semester in special education strategies and pedagogy. Additionally, student teachers should be required to student teach at least one week in a mild/moderate special needs classroom and one week in a moderate/severe special needs classroom, so they gain insight and learn about differentiating for varying student needs and also appreciate the expertise of the special educators.

Required university coursework for special educators. Coursework in one or two subject areas so special educators have content area expertise. Additionally, coursework on special education law and co-teaching strategies and practices.

Mandatory Autism Certificate for all teachers. A fourth policy recommendation would be for there to be a mandatory requirement for all teachers to acquire the Autism Certificate. Currently, all special educators in the state of California need to have an Autism Certificate if they are teaching students with autism. With the high number of students with autism, the state of California should require all teachers to acquire their Autism Certificate, similar to how they require all teachers to obtain multicultural training and English as a second language certification. School districts can develop in house training for Autism Certificates.

Ongoing special education professional development- Sustained collaborative, job embedded, data-driven classroom-focused professional development has shown to have the largest effect on successful co-teaching relationships. (Every Student Succeeds Act, 2015; Villa & Thousand, 2014). A fifth policy recommendation would be to have ongoing professional development both at school sites and district-wide on best practices, special education law and policies, and co-teaching for general and special education teachers and administration. Team up with a university to do training and studies at the school sites. This way schools can have affordable training by experts in the field.

Team with other schools in the district. Have schools team with each other around co-teaching. They can see other programs in practice and learn from them and each other.

Summer paid planning time. A sixth policy recommendation is to have allocated summer planning time before the start of the school year, so co-teachers can meet with their prospective co-teachers and speak to expectations and plan for the beginning of the school year.

Common planning time. A seventh policy recommendation is to have set common planning times for co-teaching partners at the minimum once per month, preferable bi-weekly or weekly. These set common planning times cannot be used for IEP or other meetings.

Recommendations for Future Research

There are four recommendations for future research that emerged from this case study:

1. Investigate students, parents, assistants, and administrators' perceptions of co-teaching at a high performing school that practices a full-inclusion model. In this case study only the teachers' perspectives were explored. A case study involving all stakeholders would give more insights into what makes a program successful.

2. Study a school over a 3-5-year period while providing ongoing quality professional development, the supports that are needed, lower class sizes, and caseloads.
3. Develop a pilot model for research where the teachers choose to co-teach, receive training before they co-teach, and ongoing training while they are teaching. Study this model at least over 3 years.
4. Provide supports and training at a low performing school and investigate if there is growth academically and socially for the students.
5. Research the cost effectiveness of co-teaching versus special day programs.

Summary

This study explored the fundamental attitudes, practices, and relationships that contribute to successful co-teaching partnerships in a purposefully selected high performing urban high school setting in Southern California. Co-teaching is now a push in all high schools in California. This is a topic of the utmost importance due to IDEIA's least restrictive environment clause, the strict guidelines for teacher credentialing, the high attrition rate of special educators, and the push for higher academic gains for students. Co-teaching has been shown to improve both general education, and special education students have shown to make both academic and social-emotional growth in co-teaching programs with the appropriate supports (Ainscow & Cesar, 2006; Sindelar et al., 2006). The school in this study was selected because it was a high performing California Star Honor Role school in an urban setting that has scored above both district and state in English language arts, math, and science for the past 3 years. There is minimal, if any, research on co-teaching at a high performing urban high school. The study was to garner information to the factors that contribute to its success, so other schools, districts, and

universities will be able to utilize the knowledge to create targeted professional development, enhance teacher training programs, and replicated the success factors in other school settings.

The findings confirmed much of the research that is out in the field regarding attitudes, relationships, and behaviors of teachers. The findings found four conclusions with regards to what is necessary for successful co-teaching: (a) relationships and attitudes, (b) supports, (c) time, and (d) training. Additionally, the findings supported nine recommendations for policy and practice: (a) lower caseloads for special education and co-teachers, (b) pre-service and in-service training in co-teaching best practices, (c) required university coursework for general educators, (d) required university coursework for special educators, (e) mandatory Autism Certificate for all teachers, (f) ongoing professional development, (g) team with other schools in the district, (h) summer paid planning time, and (i) common planning time.

REFERENCES

Allen, A., Glassman, M. Riegel, L. & Dawson, H. (2013). Investigatin Constituent Values and School Policy. *Education & Urban Society, 45(3),* p.340-361 https://doi.org/10.1177/0013124511409403

American with Disabilities Act. (1990). Retrieved from https://adata.org/faq/what-definition-disability-under-ado

Ainscow, M. (2000). The next step for special education: Supporting the development of inclusive practices. *British Journal of Special Education, 27*(2), 76-80. https://doi.org/10.1111/1467-8527.00164

Ainscow, M., & César, M. (2006). Inclusive education ten years after Salamanca: Setting the agenda. *European Journal of Psychology of Education, 21*(3), 231-238. https://doi.org/10.1007/BF03173412

Austin, V. L. (2001). Teacher beliefs about co-teaching. *Remedial and Special Education, 22*(4), 245-253. https://doi.org/10.1177/074193250102200408

Avarmidis, E., Bayliss, P., & Burden, R. (2000). A survey into mainstream teachers' attitudes towards the inclusion of children with special educational needs in the ordinary school in one local education authority. *Educational Psychology, 20*(2), 191-211. https://doi.org/10.1080/713663717

Baker, E. T. (1994). *Meta-analytic evidence for non-inclusive educational practices: Does education research support current practice for special needs students?* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses database. (B79233)

Baker, E. T., Wang, M. C & Walhberg, H. J. (1995). The effects of inclusion on learning. *Educational Leadership, 52*(4), 33-35. Retrieved from http://www.ascd.org/publications/educational-leadership.aspx

Barnett, C., & Monda-Amaya, L. E. (1998). Principals' knowledge of and attitudes toward inclusion. *Remedial and Special Education, 19*(3), 181-192. https://doi.org/10.1177%2F074193259801900306

Bateman, D., & Bateman, C. F. (2001). *A principal's guide to special education.* Arlington, VA: Council for Exceptional Children.

Beattie v. Board of Education, 169 WI 231, 172 NW 153 (1919). Retrieved from https://books.google.com/books?id=35gUAAAAYAAJ&pg=PA231&lpg=PA231&dq=beattie+v+board+of+education+1919&source=bl&ots=MHvar4sJmH&sig=3NkLLrCpH9HmviDeWqbQapD6eQ4&hl=en&sa=X&ved=0ahUKEwjD5J3bjoTUAhXqw1QKHYOeBFIQ6AEIUTAI#v=onepage&q=beattie%20v%20board%20of%20education%201919&f=false

Bennett, T., Deluca, D., & Bruns, D. (1997). Putting inclusion into practice: Perspectives of teachers and parents. *Exceptional Children, 64*(1), 115-131. https://doi.org/10.1177/001440299706400108

Bixler, L. L., (1998). Perceptions of co-teachers: An exploration of characteristics and components needed for co-teaching. *Dissertation Abstracts International, 59*(03A), 780.

Boe, E., Barkanic, G., & Loew, C. (1999). *Retention and attrition of teachers at the school level: National trends and predictors* (Data Analysis Report No. 1999-DARI). Philadelphia, PA: University of Pennsylvannia. Retrived from https://files.eric.ed.gov/fulltext/ED436485.pdf

Brinkman, J., & Twiford, T. (2012). Voices from the field: Skill sets needed for effective collaboration and co-teaching. *International Journal of Educational Leadership Preparation,* 7(3), 3-16

Brown v. Board of Education., 347 U.S. 483 (1954).74 S. Ct. 686.98 L. Ed. 873.Retrieved from http://www.uscourts.gov/educational-resources/educational-activities/history-brown-v-board-education-re-enactment

Brownell, M., & Pajares, R. (1999). Teacher efficacy and perceived success in mainstreaming students with learning and behavior problems. *Teacher Education and Special Education, 22*(3), 154-164. https://doi.org/10.1177/088840649902200303

Bryant-Davis, K. E., Dieker, L., Pearl, C., & Kirkpatrick, R. M. (2012). Planning in the middle: Co-planning between general and special education. *Journal of Educational and Psychological Consultation, 22*(3)*,* 208-226. https://doi.org/10.1080/10474412.2012.706561

Bureau of Labor Statistics, U.S. Department of Labor. (2015). *About the shortage.* http://specialedshortages.org/about-the-shortage/

Burstein, N., Bears, S., Wilcoxen, A., Cabello, B., & Spagna, M. (2004). Moving towards inclusive practices. *Remedial and Special Education, 25*(2), 104-116. https://doi.org/10.1177/07419325040250020501

Burton, D., & Pace, D. (2009). Preparing pre-service teachers to teach mathematics in inclusion classrooms: A three-year case study. *School Science and Mathematics, 109*(2), 108-115. https://dx.doi.org/10.1111/j.1949-8594.2009.tb17943.x

Butler-Hayes, R. (1995). *A study of high school stakeholders' attitudes about inclusion in the Chicago public schools* (Unpublished doctoral dissertation). Roosevelt University, Chicago, IL.

California School Dashboard. (2018). Retrieved from http://www.sarconline.org/Sarc/About/19647250127381?year=2017-18&CFID=79993939&CFTOKEN=ba2338f2b0f69142-27DED3D7-E8FE-4736-FD1EFAB53468B203

Campbell, D. B., Jr., & Jeter-Iles, P. (2017). Educator perceptions on co-teaching more than a decade later. *Journal of Behavioral & Social Sciences 4*(3), 156-163. Retrieved from https://web-b-ebscohost-com

Carlberg, C., & Kavale, K. K. (1980). The efficacy of special versus regular class placement for exceptional children: A meta-analysis. *The Journal of Special Education, 14*(3), 296-309. https://doi.org/10.1177/002246698001400304.

Carpenter, L., & Dyal, A. (2007). Secondary inclusion: Strategies for implementing the consultative teacher model. *Education, 127*(3), 344-350. Retrieved from http://www.sciencepublishinggroup.com/journal/

Cleaveland, P. (2015). *A multi-case study examining co-teaching approaches and practices in high school math and literature/composition classes* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (UMI No. 3704462)

Cook , L., & Friend, M. (1995). Co-teaching: Guidelines for creating effective practices. *Focus on Exceptional Children, 28*(3), 1-28. https://doi.org/10.17161/foec.v28i3.6852

Cooper, H. M., & Tom, D. Y. H. (1984). Teachers' expectation research: A review with implications for the classroom. *Elementary School Journal, 85*(1), 7-89. https://doi.org/10.1086/461393

Cox, J. (1996). *Your opinion, please: How to build the best questionnaires in the field of education.* Thousand Oaks, CA: Corwin.

Cox, E. P. (2008). A consideration of the influences that predict middle school principal attitudes. *Academic Leadership, 6,* 1-9. Retrieved from https://scholars.fhsu.edu/alj/vol6/iss1/2/

Creswell, J. W. (2009). *Research design.* Thousand Oaks, GA: Sage.

Creswell, J. W., Plano Clark, V. L., Gutmann, M., & Hanson, W. (2003). *Designing and conducting mixed methods research.* Thousand Oaks, CA: Sage.

Cruzeiro, P. A., & Morgan, R. L. (2006). The rural principal's role with consideration for special education. *Education, 126*(3), 569-579. Retrieved from http://journals.sagepub.com

Daniel R. R. v. State Board of Education, El Paso Independent School District, 874 F. 2d 1036 (5th Cir. 1989). Retrieved from http://www.ecases.us/case/ca5/c523168/daniel-rr-v-state-board-of-education-el-paso-independent-school

Demik, D. (2008). Experiencing attrition of special education teachers through narrative inquiry. *High School Journal, 92*(1), 22-32. http:doi.org/10.1353/hsj.0.0009

Dieker, L. A. (2001). What are the characteristics of "effective" middle and high school co-taught teams for students with disabilities? *Preventing School Failure, 46*(1), 14-23 https://doi.org/10.1080/10459880109603339

Dieker, L. A., & Murawski, W. (2008). Co-teaching at the secondary level: Unique issues, current trends, and suggestions for success, *86*(4), 1-14. https://doi.org/10.1353/hsj.2003.0007

Dunn, L. M. (1968). Special education for the mildly retarded: Is much of it justifiable? *Exceptional Children, 35*(1), 5-22. https://doi.org/10.1177/001440296803500101

Education of the Handicapped Act, EHA, 1970, P. L. 91-230.

Education for All Handicapped Children Act, EAHCA, 1975, P. L. 94-142.

Eloff, I., Engelbrecht, P., Oswald, M. M., Swart, E., & Yssel, N. (2007). Views of inclusion. A comparative study of parents' perceptions in South Africa and the United States. *Remedial and Special Education, 28*(6), 356-365. https://doi.org/10.1177/07419325070280060501

Endrew F. v Douglas County District RE- 1 (2017). 798 F. 3d 1329 No. 15-827. Retrieved from https://www.supremecourt.gov/opinions/16pdf/15-827_0pm1.pdf

Every Student Succeeds Act. (2015). Every Student Succeeds Act of 2015 (ESSA), Pub. L. No. 114—95 § 114 Stat.

Faircloth, S. C. (2004). Understanding the impact of U. S. federal education policies on the education of children and youth with disabilities. *International Studies in Educational Administration, 32*(2), 32-46. Retrieved from http://web.b.ebscohost.com

Fennick, E. (1995). *General education and special education teachers' perceived responsibilities and preparation for collaborative teaching* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses database. (B79233)

Fennick, E., & Liddy, D. (2001). Responsibilities and preparation for collaborative teaching: Co-teachers' perspectives. *Teacher Education and Special Education, 24*(3)*,* 229-240. https://doi.org/10.1177/088840640102400307

Fishbaugh, M. S. E., & Gum, P. (1994). Inclusive education in Billings, Montana: A prototype for rural schools. *Proceedings of the Annual National Conference of the American Council on Rural Special Education* (ACRES, pp. 412-419), Austin, TX.

Fore, C. III, Hagen-Burke, S., Burke, M. D., Boon, R. T., & Smith, S. (2008). Academic achievement and class placement in high school: Do students with learning disabilities achieve more in one class placement than another? *Education and Treatment of Children, 31*(1), 55-72. https://doi.org/10.1353/etc.0.0018

Forlin, C., Douglas, G., & Hattie, J. (1996). Inclusive practices: How accepting are teachers? *International Journal of Disability, Development, 43*(2), 119-133. https://doi.org/10.1080/0156655960430203

Friend, M. (2008). *A handbook for creating and sustaining effective classroom partnerships in inclusive schools*. Avon, MA: Simon & Schuster.

Friend, M., Cook, L., Hurley-Chamberlain, D., & Shamberger, C. (2010). Co-teaching: An illustration of the complexity of collaboration in special education. *Journal of Educational and Psychological Consultation, 20*(1), 9-27. https://doi.org/10.1080/10474410903535380

Fuchs, D., & Fuchs, L. S. (1991). Framing the REI debate: Abolitionists versus conservationists. In J. W. Lloyd, N. N. Singh & A. C. Repp (Eds.), *The regular education initiative: Alternative perspectives on concepts, issues, and models* (p. 241-255). Sycamore, IL: Sycamore.

Fuchs, D., & Fuchs, L. S. (1995). Sometimes separate is better. *Educational Leadership, 52*(4), 22-26. Retrieved from http://www.ascd.org/publications/educational-leadership/archived-issues.aspx

Fuchs, D., & Fuchs, L. S. (1998). Inclusion versus full inclusion. *Childhood Education, 74*(5), 309-316. https://doi.org/10.1080/00094056.1998.10521956

Fuchs, D., & Fuchs, L. S. (2006). Introduction to response to intervention: What, why, and how valid is it? *Reading Research Quarterly, 41*(1), 93-99. http:dx.doi.org/10.1598/RRQ.41.1.4

Fuchs, D., Fuchs, L. S., & Fernstrom, P. J. (1993). A conservative approach to special education reform: Mainstreaming through transenvironmental programming and curriculum-based measurement. *American Educational Research Journal, 30*(1)*,* 149-177. https://doi.org/10.3102/00028312030001149

Fuchs, D., Fuchs, L. S., & Stecker, P. M. (2010). The "blurring" of special education in a new continuum of general education placements and services. *Exceptional Children, 76*(3), 301-323. http:dx.doi.org/10.1177/001440291007600304

Gartner, A., & Lipsky, D. K. (1989). *The yoke of special education: How to break it.* Rochester, NY: National Center on Education and the Economy.

Gaut, J. A (1994). Essential elements for successful collaboration. *Dissertations Abstracts International, 56*(01A), 159.

Gehrke, R. S., & Murri, N. (2006). Beginning special educators' intent to stay in special education: Why they like it here. *Teacher Education and Special Education, 29*(3), 179-190. https://doi.org/10.1177%2F088840640602900304

Giametti-May, C. (2009). *Impact of inclusion supports for students with disabilities on state accountability measures within California school districts* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses database. (B79233)

Glancy, M. C., Morse, T. E., & Russo, C. J. (1998). Special education: A legal history and overview. *School Business Affairs, 64*(8). Retrieved from https://asbointl.org/publications-resources/school-business-affairs

Gordon, S. (2006). Making sense of the inclusion debate under IDEA. *B.Y.U. Education and Law Journal, 2006*(1)*,* 189-223. Retrieved from khttps://digitalcommons.law.byu.edu/elj/vol2006/iss1/5

Hagan-Burke, S., & Burke, M. D. (2008). Academic achievement and class placement in high school: Do students with learning disabilities achieve more in one class placement than another? *Education and Treatment of Children, 31*(1), 55-72. https://doi.org/10.1353/etc.0.0018

Hang, Q., & Rabren, K. (2009). An examination of co-teaching perspectives and efficacy indicators. *Remedial and Special Education, 30*(5), 259-268. https://doi.org/10.1177/0741932508321018

Hartfield, L. R. (2009). *Mathematics achievement of regular education students by placement in inclusion and non-inclusion classrooms and their principals' perceptions of inclusion.* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses database. (B79233)

Hocutt, A. M. (1996). Effectiveness of special education: Is placement the critical factor? *The Future of Children, 6*(1), 77-102. https://doi.org/10.2307/1602495

Hollowood, T.M., Salisbury, C.L., & Rainforth, B. (1995). Use of instructional time in classrooms serving students with and without disabilities. *Exceptional Children, 61*(3), 242-252. https://doi.org/10.1177/001440299506100304

Hooks, L., & Swick, K. J. (2005). Parental experiences and beliefs regarding inclusive placements of their special needs children. *Early Childhood Education Journal, 32*(6), 397-402. http:dx.doi.org/10.1007/s10643-005-0011-9

Horrocks, J. L., White, G., & Roberts, L. (2008). Principals' attitudes regarding inclusion of children with autism in Pennsylvania public schools. *Journal of Autism and Developmental Disorders, 38*(8), 1462-1473. https://doi.org/10.1007/s10803-007-0522-x

House of Representatives, 108th Congress First Session. (2003). *Hearing before the subcommittee on education reform of the committee on education and the workforce* (Report No. 108-109).Washington, DC: U.S. Government. Retrieved from http://www.eric.ed.gov:80/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/1b/91/fe.pdf

Hunt, N., & Marshall, K. (1999). *Exceptional children and youth.* Boston, MA: Harcourt Brace.

Hunt, P., Staub, D., Alwell, M., & Geotz, L. (1994). Achievement by all students within the context of cooperative learning groups. *The Journal of the Association for Persons with Severe Handicaps, 19*(4), 209-301. https://doi.org/10.1177/154079699401900405

Idol, L. (1997). *Creating collaborative and inclusive schools.* Austin, TX: PRO-ED.

Idol, L. (2006). Towards inclusion of special education students in general education. A program evaluation of eight schools. *Remedial and Special Education, 27*(2), 77-94. https://doi.org/10.1177/07419325060270020601

Individuals with Disabilities Education Act Amendments of 1997 (IDEA), Pub. L. No. 105-117, 20 USC §1400 *et. seq*. https://doi.org/10.1177/074193250502600602O1

IDEIA, Individuals With Disabilities Education Improvement Act of 2004. Pub. L. No. 108–446 Retrieved from http://idea.ed.gov/explore/view/p/%2Croot%2Cstatute%2C

Isherwood, R. S., & Barger-Anderson, R. (2008). Factors affecting the adoption of co-teaching models in inclusive classrooms: One school's journey from mainstreaming to inclusion. *Journal of Ethnographic & Qualitative Research, 2*(2), 121-128. Retrieved from

https://www.schoolturnaroundsupport.org/sites/default/files/resources/Isherwood_2008_Factors.pdf

Jenkins, J. R., Pious, C. G., & Perterson, D. L. (1988). Categorical programs for remedial and handicapped students: Issues of validity. *Exceptional Children, 55*(2), 147-158. https://doi.org/10.1177/001440298805500206

Katsiyannis, A., Yell, M. L., & Bradley, R. (2001). Reflections on the 25th anniversary of the Individuals with Disabilities Education Act. *Remedial and Special Education, 22*(6), 324-334. https://doi.org/10.1177/074193250102200602

Kauffman, J. M. (1989). The Regular education Initiative as Reagan-Bush education policy: A trickle-down theory of education of the hard-to-teach. *The Journal of Learning Disabilities, 23*(3)*,* 6-12. https://doi.org/10.1177/002246698902300303

Kauffmen, J. M., Braaten, Nelson, S., & Polsgrove, L. (1990). The regular education initiative and patent medicine: A rejoinder to Algozzine, Maheady, Sacca,and O'Shea. *Exceptional Children*, *56*(6), 558-560. https://doi.org/10.1177/001440299005600607

Kavale, K. A., & Forness, S. R. (2000). History, rhetoric, and reality. *Remedial & Special Education, 21*(5), 279-296. https://doi.org/10.1177/074193250002100505

Keefe, E.B., & Moore,V. (2004). The *challenge* of co-teaching in inclusive classrooms at the high school level: What the teachers told us. *American Secondary Education, 32*(3), 77-88. Retrieved from http://journals.sagepub.com

Kennedy, C. H., Shukla, S., Fryxell, D. (1997). Comparing the effects of educational placement on the social relationships of intermediate school students with severe disabilities, *Exceptional Children, 64*(1), 31-47. https://doi.org/10.1177/001440299706400103

Klinger, J. K., Vaughn, S., Hughes, M. T., Schumm, J. S., & Elbaum, B. (1998). Outcomes for students with and without learning disabilities in inclusive classrooms. *Learning Disabilities Research & Practice, 13*(3), 153-161. Retrieved from https://doi.org/10.1177/002221949803100502

Kloo, A., & Zigmond, N. (2008). Coteaching revisited: Redrawing the blueprint. *Preventing School Failure, 52*(2), 12-20. https://doi.org/10.3200/PSFL.52.2.12-20

Kohler-Evens, P. A. (2006). Co-teaching: How to make this marriage work in front of the kids. *Education, 127*(2), 260-264. Retrieved from http://journals.sagepub.com

Kozol, J. (2005, September). Still separate, still unequal: America's educational apartheid. *Harper's*, pp. 41-54. Retrieved from https://www.harpersbazaar.com/

Kubicek, F. C. (1994). Special education reform in light of select state and federal court decisions. *The Journal of Special Education, 28*(1), 27-42. https://doi.org/10.1177/002246699402800103

Kuglemass, J. W. (2006). Sustaining cultures of inclusion: The value and limitation of cultural analyses. *European Journal of Psychology of Education, 21*(3), 279-292. Retrieved from http://journals.sagepub.com

Lackaye, T.D.(1997). General education teachers' views of academic interventions for students with disabilities. *Dissertation Abstracts International, 58*(03A), 818.

LaNear, J., & Frattura, E. (2007). Getting the stories straight: Allowing different voices to tell an effective history of special education law in the United States. *Education and the Law, 19*(2), 87-109. (ERIC Document Reproduction Service No. EJ815636)

Lipsky, D., & Gartner, A. (1987). Capable of achievement and worth of respect: Education for handicapped students as if they were full-fledged human beings. *Exceptional Children, 54*, 69-74. https://doi.org/10.1177%2F001440298705400112

Lipsky, D. K., & Gartner, A. (1996). Inclusion, school restructuring and the remaking of American society. *Harvard Educational Review, 66*(4), 762-795. https://doi.org/10.17763/haer.66.4.3686k7x734246430

Magiera, K., Smith, C., Zigmond, N., & Gerbauer, K. (2005). Benefits of co-teaching in secondary mathematics classes. *Council for Exceptional Children, 37*(3), 20-24. https://doi.org/10.1177/004005990503700303

Maloney, J. (1994). A call for placement options. *Educational Leadership, 52*(4), 25. Retrieved from http://www.ascd.org/publications/educational-leadership/dec94/vol52/num04/A-Call-for-Placement-Options.aspx

Marston, D. (1987). The effectiveness of special education: A time series analysis of reading performance in regular and special education settings. *The Journal of Special Education, 21*(4), 13-26. Retrieved from http://web.b.ebscohost.com

Martin, D. S. (1997). Inclusion: Time to rethink. *The Educational Forum, 61*, 232-239. https://doi.org/10.1080/00131729709335260

Mastropieri, M. A., McDuffe, K. A., & Scruggs, T. E. (2007). Co-teaching in inclusive classrooms: A meta synthesis of qualitative research. *Exceptional Children, 73*(4), 392-416. https://doi.org/10.1177/001440290707300401

McLeskey, J., & Billingsley, B. S. (2008). How does the quality and stability of the teaching force influence the research-to-practice gap? *Remedial and Special Education, 29,*(5)*,* 293-305. https://doi.org/10.1177/0741932507312010

McLeskey, J., Tyler, N.C., & Flippin, S. S. (2004). The supply of and demand for special education teachers: A review of research regarding the chronic shortage of special education teachers. *Journal of Special Education, 38*(1), 5-21 http://doi.org/10.1177/00224669040380010201

Mertens, D. M., (2005). *Research and evaluation in education and psychology: Integrating diversity with quantitative, qualitative, and mixed methods.* Thousand Oaks, London: Sage.

Mills v. Board of Education, 348 F. Supp. 866 (D. D. D. 1972).

Mitchum, K. (2005). Be proactive: Including students with challenging behavior in your classroom. *Intervention in School and Clinic, 40*(3), 188-191. https://doi.org/10.1177%2F10534512050400030901

Murawaski, W. W. (2009). *Collaborative teaching in secondary schools: Making the co-teaching marriage work!* Thousand Oaks, CA: Corwin.

Murwaski, W. W., & Dieker, L. (2008). 50 ways to keep your co-teachers: Strategies for before, during, and after co-teaching. *Teaching Exceptional Children, 40*(4), 40-48. https://doi.org/10.1177%2F004005990804000405

Murawaski, W.W., & Lochner, W. (2018), *Beyond co-teaching basics: A data driven, no-fail model for continuous improvement.* Alexandria, VA: ACSD

National Center on Educational Restructuring and Inclusion. (1995). *National study of inclusive education.* New York, NY: City University of New York, Graduate School and University Center, National Center on Educational Restructuring and Inclusion.

National Association of State Boards of Education. (1992). *Winners all: A call for inclusive schools.* Alexandria, VA: Author.

No Child Left Behind Act, NCLB. (2001). Retrieved from http://www.nochildleftbehind.com/

Noonan, M. J., McCormick, L., & Heck, R. H. (2003). The co-teacher relationship scale: Applications for professional development. *Education and Training in Developmental Disabilities, 38*(1), 113-120. Retrieved from https://books.google.com/books?id=6Y0bAQAAMAAJ

Peetsma, T., Veerger, M., Roeleveld, J. & Karsten, S. (2001). Inclusion in education: Comparing pupils' development in special and general education. *Educational Review, 53*(2), 125-135. https://doi.org/10.1080/00131910125044

Pfeiffer, S. I., & Reddy, L. A. (Ed.). (1999). *Inclusion practices with special needs students: Theory, research, and application.* New York, NY: Hawthorne Press.

Pennsylvania Association for Retarded Children (PARC) v. Commonwealth of Pennsylvania, 343 F. Supp. 279, Consent Agreement (1972).

Praisner, C. L. (2003), Attitudes of elementary school principals toward the inclusion of students with disabilities. *Exceptional Children, 69* (2)*,* 135-145. http://dx/doi.org/10.1177/001440290306900201

Rea, P. J., McLaughlin, V. L., & Walther-Thomas, C. (2002). Outcomes for students with learning disabilities in inclusive and pullout programs. *Exceptional Children, 68*(2), 203-223. https://doi.org/10.1177/001440290206800204

Rehabilitation Act of 1973, Public Law 93-112, 29 U.S.C. § 701 Retrieved from https://www2.ed.gov/about/offices/list/ocr/504faq.html

Ritter, C. L., (1999). Concerning inclusion: Perceptions of middle school students, their parents, and teachers. *Rural Special Education Quarterly, 18*(2), 10-27. https://doi.org/10.1177/875687059901800203

Sacks, A., & Watnick, B. (2006). A snapshot of teacher perceptions on full inclusion in an international urban community: Miami-Dade County, Florida. *The Journal of the International Association of Special Education, 7*(1), 67-73. Retrieved from http://web.b.ebscohost.com

Samuels, C., A. (2016). Number of U.S. students in special education ticks upwards. *Education Week, 35*(28), 1-2. Retrieved from http://www.edweek.org/ew/articles/2016/04/20/number-of-us-students-in-special-education.html

Sindelar, P. T., Shearer, D. K., Yendol-Hoppey, D., & Liebert, T. W. (2006). The sustainability of inclusive school reform. *Council for Exceptional Children*, *72*(3), 317-331. Retrieved from https://doi.org/10.1177/001440290607200304

Santoli, S. P., Sachs, J., Romey, E. A., & McClurg, S. (2008). A successful formula for middle school inclusion: Collaboration, time, and administrative support. *Research in Middle Level Education Online, 32*(2), 1-13. http:dx.doi.org/10.1080/19404476.2008.11462055

School Accountability Report Card. (2016). http://sarconline.org/Sarc/Outcomes/19647250127381?year=

School Accountability Report Card. (2017). http://www.sarconline.org/Sarc/About/19647250127381?year=2017-18&CFID=79993939&CFTOKEN =ba2338f2b0f69142-27DED3D7-E8FE-4736-FD1EFAB53468B203

School Accountability Report Card. (2018). http://www.sarconline.org/Sarc/About/19647250127381?year=2017-18&CFID=79993939&CFTOKEN =ba2338f2b0f69142-27DED3D7-E8FE-4736-FD1EFAB53468B203

Schumm, J. S., & Vaughn, S. (1995). Getting ready for inclusion: Is the stage set? *Learning Disabilities Research & Practice, 10*(3), 169-179.

Scruggs, T. E., Mastropieri, M.A., & McDuffie, K. A. (2007). Co-teaching in inclusive classrooms: A metasynthesis of qualitative research. *Exceptional Children, 73*(4), 392-416 https://doi.org/10.1177/001440290707300401

Scruggs, T.E., & Mastropieri, M.A., (2017). Making inclusion work with co-teaching. *Teaching Exceptional Children. 49*(4) 284-293. https://doi.org/10.1177/0040059916685065

Shaffer, L., & Thomas-Brown, K. (2015). Enhancing teacher competency through co-teaching and embedded professional development. *Journal of Education and Training Studies, 3*(3), 117-125. https://doi.org/10.11114/jets.v3i3.685

Shanker, A. (1995). Full inclusion is neither free nor appropriate. *Educational Leadership, 52* (4), 18-25. Retrieved from http://www.ascd.org/publications/educational-leadership/dec94/vol52/num04/Full-Inclusion-Is-Neither-Free-Nor-Appropriate.aspx

Shanks, C. A. (2009). *The relationship between principals' attitudes toward inclusion, their inclusive practices, and the AYP status of their schools and students with disabilities in reading/language arts, and mathematic.* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses database. (B79233)

Sharpe, M., & York, J. (1994). Effects of inclusion on the academic performance of classmates without disabilities. *Remedial & Special Education, 15*(5), 281-289. http:dx.doi.org/10.1177/074193259401500503

Sileo, J., & Van Garderen, D. (2010). Creating optimal opportunities to learn mathematics: Blending co-teaching structures with research-based practices. *Teaching Exceptional Children, 42*(3), 14-21.

Sindelar, P. T., & Deno, S. L. (1978). The effectiveness of resource programming. *The Journal of Special Education, 12*(1), 17-28. http:dx.doi.org/10.1177/002246697801200105

Soodak, L. C. (2004). Parents and inclusive schooling: Advocating for and participating in the reform of special education. In S. Danforth & S. D. Taff (Eds.), *Crucial reading in special education,* pp. 260-273. Upper Saddle River, NJ: Pearson Education.

Stainback, W., & Stainback, S. (1987). Facilitating friendships. *Education and Training in Mental Retardation, 22*(1), 18-25.

Stainback, W., & Stainback, S. (1992). *Controversial issues confronting special education: Divergent perspectives*. Needham Heights, MA: Allyn and Bacon.

Timothy V. Rochester N. IL. School DLIS' MICT (1989). United States Court of Appeals. 875 F.2d 954 (1st Cir.).

Turnbull, R., Huerta, N., & Stowe, M. (2009). *The Individuals with Disabilities Education Act as amended in 2004.* Boston, MA: Pearson.

UNESCO (1994), *The Salamanca statement and framework for action on special needs education. Adopted by the world conference on special needs education: Access and equity.* Retrieved from: http://unesdoc.unesco.org/images/0009/000984/098427eo.pdf

U. S. Department of Education. (2007). *Twenty-seventh annual report to Congress on the implementation of the Individuals with Disabilities Education Act, 2004*. Washington, DC: Office of Special Education and Rehabilitation Services, Office of Special Education Program. Retrieved from: http://www.ed.gov/about/reports/annual/osep/2005/parts-b-c/index.htm

U. S. Department of Education. (2009). *Twenty-eighth annual report to Congress on the implementation of the Individuals with Disabilities Education Act, 2004*. Washington,

DC: Office of Special Education and Rehabilitation Services, Office of Special Education Program. Retrieved from: http://www.ed.gov/about/reports/annual/osep/2005/parts-b-c/index.htm

U. S. Department of Education. (2009). *No Child Left Behind.* Retrieved from http://answers.ed.gov/cgibin/education.cfg/php/enduser/std_adp.php?p_faqid=4

U.S. Department of Education. (2013). *California Office to Reform Education.* Retrieved from https://www2.ed.gov/policy/eseaflex/approved-requests/cacorewaiver92014.pdf

U. S. Department of Education. (2014). *36th annual report to Congress on the implementation of the Individuals with Disabilities Education Act, 2004*. Washington, DC: Office of Special Education and Rehabilitation Services, Office of Special Education Program. Retrieved from http://www2.ed.gov/about/reports/annual/osep/2014/parts-b-c/36th-idea-arc.pdf

U. S. Department of Education. (2016). *38th annual report to Congress on the implementation of the Individuals with Disabilities Education Act, 2004*. Washington, DC: Office of Special Education and Rehabilitation Services, Office of Special Education Program. Retrieved from https://www2.ed.gov/about/reports/annual/osep/2016/parts-b-c/38th-arc-for-idea.pdf

U.S. Department of Education, National Center for Education Statistics. (2016). *Digest of Education Statistics, 2015* (NCES 2016-014), Chapter 2. Retrieved from https://nces.ed.gov/fastfacts/display.asp?id=64

Vaughn, S., Elbaum, B. E., Schumm, J. S., & Hughes, M. T. (1998). Social outcomes for students with and without learning disabilities in inclusive classrooms. *Journal of Learning Disabilities, 31*(5), 428-436. http:dx.doi.org/10.1177/002221949803100502

Vaughn, S., & Schumm, J. S. (1995). Responsible inclusion for students with learning disabilities. *Journal of Learning Disabilities, 28*(50), 264-270. http:dx.doi.org/10.1177/002221949502800502

Villa, R. A., & Thousand, J. S. (Ed). (2005). *Creating an inclusive school* (2nd ed.). Alexandria, VA: ASCD.

Villa, R. A., Thousand, J. S., Meyers, H., & Nevin, A. I., (1996). Teacher and administrator perceptions of heterogeneous education. *Exceptional Children. 63*, 29-45. https://doi.org/10.1177/001440299606300103

Wang, M. C., & Baker, E. T. (1985). Mainstreaming programs: Design features and effects. *The Journal of Special Education, 19*(4), 503-521. https://doi.org/10.1177/002246698501900412

Walther-Thomas, C. (1997). Co-teaching experiences: The benefits and problems that teachers and principals report over time. *Journal of Learning Disabilities, 30*, 395-407. https://doi.org/10.1177/002221949703000406

Weiner, H. M. (2003). Effective inclusion: Professional development in the context of the classroom. *Teaching Exceptional Children, 35*(6), 12-18. https://doi.org/10.1177/004005990303500602

Wilezenski, F. L. (1995). Development of a scale to measure attitudes toward inclusive education. *Educational and Psychological Measurement, 55,* 291-299.

Will, M. C. (1986). Educating children with learning problems: A shared responsibility. *Exceptional Children, 52*(5), 411-415. https://doi.org/10.1177/001440298605200502

Wilson, G. L., & Michaels, C. A. (2006). General and special education students' perceptions of co-teaching: Implications for secondary-level literacy instruction. *Reading & Writing Quarterly, 22*(3), 205-226. http:dx.doi.org/10.1080/10573560500455695

Wong, K. K., & Shen, F. X. (2002). Politics of state-led reform in education: Market competition and electoral dynamics. *Educational Policy, 16* (1), 161-197 https://doi.org/10.1177/0895904802016001009

Yin, R. (2014). *Case study research design and methods.* Thousand Oaks, CA: Sage.

York, J., & Tundidor, H. (1995). Issues raised in the name of inclusion: Perspectives of educators, parents, and students. *Journal of the Association for Persons with Severe Handicaps, 20,* 31-44. https://doi.org/10.1177/154079699502000104

Zhang, D. (2001). Self-determination and inclusion: Are students with mild mental retardation more self-determined in regular classrooms? *Education and Training in Mental Retardation and Developmental Disabilities, 36*(4), 357-362. Retrieved from http://web.b.ebscohost.com

Zigmond, N. (1995). An exploration of the meaning and practice of special education in the context of full inclusion of students with learning disabilities. *The Journal of Special Education, 29*(2), 109-115. https://doi.org/10.1177/002246699502900201

Zigmond, N. (2003). Where should students with disabilities receive special education services? is one place better than another? *Journal of Special Education, 37*(3), 193-199. https://doi.org/10.1177/00224669030370030901

APPENDIX A

Perceptions of Co-Teaching Survey

Thank you for taking the time to complete this co-teaching survey. This survey is part of a case study to determine factors that contribute to successful co-teaching. The results of this survey will be used to help improve teaching practices. Your participation in this survey is voluntary. Your responses will be kept strictly confidential, no identifiers will be used, and all responses will be presented as aggregate data.

PART ONE
Teacher Information

Definition of Terms

Collaborative Teaching or Co-Teaching refers to the assignment of a general education teacher and a special education teacher to work together, sharing responsibility for the planning and execution of instruction.

Collaborative Teachers or Co-Teachers, as defined for the purposes of this study, are general and special education teachers who are teamed for providing instruction to a heterogeneous class for one or more periods of instruction per day.

General Education Teacher refers to any teacher that is certified to provide instruction in a secondary level subject area.

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

---

1. Check the content area of the class(es) you teach collaboratively
   - __ Social Studies
   - __ Sciences
   - __ English/Language Arts
   - __ Mathematics
   - __ Fine Arts
   - __ Physical Education/Health
   - __ Foreign Language
   - __ Business
   - __ Technology
   - __ ESL/Bilingual
   - __ Vocational
   - __ Advanced Placement
   - __ Other

2. Please mark the area(s) of certification and or expertise in which you are currently employed.

   __ Special Education

   __ English Language Arts Certification

   __ English Language Arts Expertise

   __ Mathematics Certification

   __ Mathematics Expertise

   __ General Education Secondary

   Subject area(s) _____

3. Check the *highest* level of education you have achieved.

   __ Bachelors

   __ Masters

   __ Masters+

   __ Doctorate

4. How many years of teaching experience do you have? _____years

5. What is your gender?

   __ Male
   __ Female

6. Please write the number of:

   Years as a collaborative teacher _____years
   Years taught with this co-teacher _____years
   Number of teachers with whom you co-teach daily _____years
   Number of classes you teach collaboratively in a day _____classes
   Number of subjects you teach collaboratively in a day _____subjects

7. Did you volunteer for this collaborative teaching experience? Please check one answer.
   __ Yes
   __ No

PART TWO

Co-Teacher Perceptions of Current Experience

Please circle a number from 1 to 5 to indicate your level of agreement or disagreement with each statement below about co-teaching.

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
1	2	3	4	5

1. My co-teaching partner and I work very well together.	1 2 3 4 5
2. Collaboration has improved my teaching.	1 2 3 4 5
3. In my collaborative experience, I do more than my partner.	1 2 3 4 5
4. Co-teaching is a worthwhile professional experience.	1 2 3 4 5
5. My partner and I solicit each other's feedback and benefit from it.	1 2 3 4 5

Comments _____

_____

_____

Recommended Collaborative Practices

Please circle a number from 1 to 5 to indicate your level of agreement or disagreement with each statement below about co-teaching. You are asked to rate statements according to: (a) **your belief I thee value of the practice(the column titles "value")** and (b) **whether you currently employ the practice (the column titles "employ").**

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
1	2	3	4	5

	Value	**Employ**
6. Co-teachers should meet daily to plan lessons.	1 2 3 4 5	1 2 3 4 5
7. Co-teachers should share classroom management responsibilities.	1 2 3 4 5	1 2 3 4 5
8. Co-teachers should share classroom instruction.	1 2 3 4 5	1 2 3 4 5
9. Co-teachers should regularly offer feedback.	1 2 3 4 5	1 2 3 4 5
10. Co-teachers should establish	1 2 3 4 5	1 2 3 4 5

and maintain specific areas of responsibility.

Other collaborative practices you find effective _____

_____

_____

Teacher Preparation for Collaborative Teaching

What kinds of academic preparation o you think would be beneficial to collaborative teaching? Please circle the number from 1 to 5 beside each of the following academic preparations that best describes your perception of its usefulness to a collaborative teacher.

Very Useful	Somewhat Useful	Of Limited Use	Not Useful	Don't Know
1	2	3	4	5

11. Student teaching placement in a collaborative class	1 2 3 4 5
12. School district in-service presentations on alternative assessments	1 2 3 4 5
13. School district workshops/mini courses on facilitating collaborative teaching	1 2 3 4 5
14. Mentoring by experienced collaborative teacher(s)	1 2 3 4 5
15. Pre-service courses in collaborative teaching	1 2 3 4 5
16. Pre-service special education courses for general education teachers	1 2 3 4 5
17. Pre-service general education courses for special education teachers	1 2 3 4 5

Other _____

_____

School-Based Supports that Facilitate Collaborative Teaching

What kinds of school-based services should be provided in order to facilitate collaborative teaching? For the purpose of this study, school-based services are defined as services including teaching materials/equipment, administrative support, and provision of adequate planning time.

Please circle a number from 1 to 5 to indicate the importance you place on each of the following school-based supports. You are asked to rate each statement according to (a) **your belief in the value of the school-based service (column titles "Value")** and (b) **whether you currently have access to or receive the school-based service (column titles "Access").**

Very Useful	Somewhat Useful	Of Limited Use	Not Useful	Don't Know
1	2	3	4	5

	Value	**Access**
18. Provision for scheduled mutual planning time.	1 2 3 4 5	1 2 3 4 5
19. Administrative support of collaboration.	1 2 3 4 5	1 2 3 4 5
20. Adequate teaching aids and supplies appropriate to learning levels.	1 2 3 4 5	1 2 3 4 5
21. In-service training opportunities provided (workshops, etc.).	1 2 3 4 5	1 2 3 4 5
22. Summer planning time allocated.	1 2 3 4 5	1 2 3 4 5
23. Opportunities to modify classroom configuration.	1 2 3 4 5	1 2 3 4 5

Other _____

_____

_____

APPENDIX B

CTSS Co-Teaching Core Competencies Observation Checklist

Date _____

General Educator_____ Special Service Provider_____

Observer: Natalie Hofland Grade(s)_____ Content Area:_____

Period/Room:_____ School: _____ Term: _____

Start:_____ End:_____

	LOOK FORS	**Rating Score**
4.5 Two or more professionals working together in the same physical space.	0= Only one adult; two adults not communicating at all; class always divided into two rooms. 1= To adults in same room, but very little communication or collaborative work. 2= Two adults in same room; both engaged in class and And each other (even if not perfectly). 3= Two adults collaborating together in the same room.	
9.5 Classroom environment demonstrates parity and collaboration (both names on board, sharing materials and space.)	0= No demonstration or parity/collaboration; room Appears to belong to one teacher only. 1= Some attempt at parity; both adults share a few materials and general space. 2= Parity exists; adults share classroom materials. 3= Clear parity, both names on the board/report card; two Desks or shared space; obvious feeling from teachers that it is "our room."	
11.6 Both Teachers begin and end class together ad remain in the room the entire time.	0= One adult is absent or late; adults may leave room for times not related to this class. 1= One adult may be late or leave early or may leave for brief time. 2= One adult may be late or leave early, but for remaining time they work together. 3= Both adults begin and end together, and are with students the entire time.	

	Note: If adults have planned to use a regrouping approach (e.g., "parallel") and one adult takes a group of students out of the room (e.g. to the library), that is perfectly acceptable.	
8.6 During instruction, both teachers assist students with and without disabilities.	0= Adults are not helping students or are only helping "their own" students. 1= There is some helping of various students, but at least one adult primarily stays with a few of "their own." 2= Both adults are willing to help all students, but students seem to have one adult they prefer to work with. 3= It is clear that both adults are willing to help all and students are used to this.	
9.6 The class moves smoothly, with evidence of co-planning and communication between teachers.	0= Little to no prior planning is evident. 1= All planning appears to have been done by one adult. 2= Minimal planning is evident; most appears to have been done by one adult. 3= It is clear that both adults are comfortable with the lesson and know what is supposed to happen.	
8.8 Class instruction and activities proactively promote multiple modes of representation engagement, and expression (universal design for learning – UDL).	0= There is no evidence of universal design; all students are expected to do the same thing. 1= There is minimal evidence of universal design; limited opportunities for choice in how students learn, engage, and show what they've learned. 2= There is some evidence of universal design; some opportunities for choice in how students learn, engage, and show what they've learned. 3= The class was universally designed; opportunities for for choice in how students learn, engage, and show what they've learned were well selected.	
3.7 Differentiated content and strategies, based on formative assessment, are used to meet the range of learning needs.	0= There is no evidence of differentiation of instruction in the classroom. 1= There is minimal differentiation; most differentiation appears to be focused on groups rather than individuals. 2= Some differentiation is evident for individuals or groups. 3= It is clear that adults consider individual students' needs and regular use of differentiation is evident.	
8.13 Technology (to include assistive technology) is used to enhance accessibility and learning.	0= There is no evidence of technology use. 1= There is limited use of technology. 2= Technology provides students with access and is used intermittently or sporadically.	

	3= Multiple technologies are utilized to make materials and content accessible and are used regularly.	
5.7 A variety of instructional approaches (five co-teaching approaches) are used, including regrouping students.	0= Students remain in large class setting and adults use One teach, one support with one adult primarily in Lead. 1= Adults rely solely on one teach, one support or team Teaching. 2= Adults regroup students (using alternative, parallel, or Station) at least once. 3= Adults use more than one of the five approaches (Friend & Cook's one teach, one support; team, Parallel, station and alternative); at least one of the Approaches involves regrouping students. Note: If teachers have been observed using other approaches in the past, and only one approach is observed today (e.g., station), it is acceptable to recall previous observations and give a 2 for using a variety of approaches as adults have demonstrated competency.	
2.7 Both teachers in engage in appropriate behavior management strategies as needed and are consistent in their approach to behavior management.	0= There is no obvious plan for behavior management, nor do adults appear to communicate about how they are approaching class management; possibly inappropriate class management. 1= Very little classroom management; mainly conducted by one teacher. 2= Behavior management strategies are utilized, but there is very little clear evidence of how adults have communicated about their use. 3= It is evident that adults have discussed how they will will approach classroom/behavior management and adults are consistent in their approach.	
11.3 It is difficult to tell the specialist from the general educator.	0= Observer could easily determine who was the general educator/specialist by their language/roles/ lack of parity. 1= Teachers kept traditional roles in the classroom, but shared or switched roles once or twice. 2= Teachers worked at having parity in the class and shared most roles and responsibilities. 3= Adults shared the roles and responsibilities in the classroom and observer would not be able to tell who was the general educator/specialist.	
1.6 It is difficult to tell the special education students from the general education students.	0= Observer could easily determine who were the general education or students with special needs by their lack of integration (e.g., students at the back or separated from class). 1= There was some inclusion of most students in most Activities.	

	LOOKS FORS TOTAL	

Notes:

	LISTEN FORS	Rating Score
9.10 Co-teachers use language ("we;" "our") that demonstrates true collaboration and shared responsibility.	0= Adults do not communicate with each other. 1= Adults use "I" language frequently (e.g., "I want you to…" or "In my class…."), lacking parity. 2= Adults attempts to use "we" language and include each other, but it is clear that one adult is more used to "ruling" the class. 3= Adults clearly use "we" language (e.g., "we would like you to….."), showing that they both share the responsibility and students know they are equally in charge.	
5.9 Communication (both verbal and nonverbal) between co-teachers is clear and positive.	0= Little to no communication is evident. 1= Communication is minimal, directive, or negative. 2= Limited communication, but it is positive in nature. 3= Both adults communicate regularly as class Progresses and are respectful and positive.	
1.9 Student's conversations evidence a sense of community, including peers with disabilities and from diverse backgrounds.	0= Students do not talk to one another during class. 1= Specific students appear to be excluded from the majority of student interactions. 2= Most students appear to be included in the majority of student interactions. 3= It is evident from the students' actions and words that all students are considered an equal part of the class and are included in all student interactions.	

8.6 Co-teachers ask questions at a variety of levels (basic recall to higher-order thinking) to meet all students' needs.	0= Adults do not use questions and most instruction is directive. 1= Questions are almost all geared just to one level (to the middle or "watered down"). 2= Teachers use closed and open questions at a variety of levels in a general manner. 3= Closed and open questions are asked at a variety of levels in a way that demonstrates they are able to differentiate for specific students in order to ensure maximum (appropriate) levels of challenge.	
	LISTEN FORS TOTAL	

Notes: _____

	ASK FORS	**Rating Score**	**Ease Score**	**Circle Evidence**
7.2 Co-Planning	0= There is no evidence that this team co-plans. Most planning, if done at all is done by one teacher. 1= This team rarely co-plans and communicates primarily on the fly. 2= This team co-plans at irregular times, but does try to integrate both teacher's perspectives when possible. 3= This team co-plans its lessons and integrates both teachers' areas of expertise to the maximum extent possible.			**Lesson Plans** **Modified Materials** **Letters Home/Syllabi** **S.H.A.R.E. Worksheets** **Problem-solving Worksheets** **Other:**
8.5 Co-Instruction: Parity	0= There is no evidence that this team Co-instructs. One teacher is clearly Responsible, as evidence in Documentation/plans, etc. 1= One teacher is clearly "lead;" However, the other does have Intermittent areas of responsibility. 2= Both teachers are provided turns in Co-instruction. 3= Teachers are comfortable in any role And roles are interchanging and fluid Throughout the lesson plan.			**Lesson Plans** **Behavior** **Documentation** **Tiered Lessons** **Class Notes** **Other:**

8.1 Co-Instruction Grouping	0= There is no evidence that this team regroups during instruction. Whole group instruction is the norm. 1= At irregular times and for very specific activities, this class is regrouped into smaller groups. 2= Cooperative learning is used in class regularly and small groups are used at least once a week. 3= Whole group and regrouping approaches are used to match learning needs. Teachers clearly use regrouping regularly and are comfortable with a variety of the co-instructional approaches.			**Lesson Plans** **Behavior** **Documentation** **Tiered Lessons** **Class Notes** **Other:**
1.2 Co-Instruction: Differentiation	0= There is no evidence that this team differentiates for the class. All lessons appear created so that students are expected to do the same things. 1= Minimal evidence demonstrates differentiation. What is available appears to focus on one or two specific students for limited activities or events (e.g., read test to Johnny). 2= Teachers appear to integrate differentiated instruction, content, and assessments into some lessons. 3= Teacher regularly include differentiated instruction, content, and assessments into their lessons. they clearly consider the needs of all students.			**Lesson Plans** **Behavior Documentation** **Tiered Lessons** **Class Notes** **Other:**
6.1 Co-Assessment	0= There is no evidence that this team co-assesses. One teacher is in charge of the grades and gradebook. 1= Teachers talk about assessments at times, but each teacher is primarily in charge of his or her "own" students. 2= Teachers use differentiated assessments occasionally and are willing to share responsibility for grading. 3= Teachers share responsibility for creating assessments, grading, and for students' overall success.			**Grade Book** **Modified Assignments** **Individual Grading Reports** **Other**

	differentiated assessments are created when needed, and both teachers are comfortable with adaptations.			

ASK FORS TOTAL	
GRAND TOTAL	

Notes: _____

_____

_____

0-29 **Not Yet Co-Teaching** 30-45 **Emerging Co-Teaching** 46-52 **Developing Co-Teaching** 53-59 **Proficient in Co-Teaching** 60-65 **Master Co-Teaching**

APPENDIX C

Interview Questions

1. Are you a general education or special education teacher?

4. Special Education Teachers
    a. Do you have a credential in a single subject or single subject expertise?
    b. If so, which area(s)?

5. Who is responsible for the following procedural elements in the classroom?
    a. Grading
    b. Student requests
    c. Behavior modifications
    d. Behavior issues
    e. Contacting parent
    f. Writing referrals
    g. Providing lesson/test accommodations/modifications
    h. Arranging seating chart/assigning groups
    i. Creating lessons/assignments
    j. Creating assessments
    k. Grading assessments

6. What does instruction look like in your classroom?
    a. Who is responsible for the instruction?
        i. Equal responsibility?
        ii. Strategically planned?
        iii. How successful is this instruction?

7. How are lectures/lessons structured?
    a. How often does whole group take place?
    b. How often does small group take place?
    c. Any pullout?

8. What types of student grouping do you use?
    a. How successful were they?

9. How do you meet the individualized needs of your student?
    a. How do you differentiate lessons?
    b. How do you collaborate about lesson differentiation?

10. Which, if any, specific program or specialized curriculums have you used or observed?

11. Did you chose your co-teaching partner(s)? If not, how are they chosen?

12. How many co-teachers do you work with during the school day?

a. Same subject area?
b. Describe experiences (benefits/barriers) teaching with more than one co-teacher?

13. What aspects of the curriculum are you most comfortable teaching?
    a. Least comfortable teaching?
    b. Explain?

14. How important is trust and respect in a co-teaching partnership? Explain?

15. What are the most important aspects for a successful co-teaching relationship?

16. Have you had any issues with co-teachers? If so how did you resolve them?

17. To enhance your co-teaching program what expertise or training do you think would be useful?
    a. Professional development topics?

18. How have the co-teaching in-services or professional development/trainings helped you?

19. What additional supports do you feel are needed to make co-teaching more successful?
    a. Administrative support
    b. Planning time
    c. Training

APPENDIX D

Notice of Approval for Human Research

Date: October 16, 2019 Protocol Investigator Name: Natalie Hofland Protocol #: 17-11-659

NOTICE OF APPROVAL FOR HUMAN RESEARCH

Pepperdine University 24255 Pacific Coast Highway
Malibu, CA 90263
TEL: 310-506-4000

Project Title: A Case Study On Successful Co-Teaching At A High-Performing High School

Southwestern United States School: Graduate School of Education and Psychology

Dear Natalie Hofland:

Thank you for submitting your application for exempt review to Pepperdine University's Institutional Review Board (IRB). We appreciate the work you have done on your proposal. The IRB has reviewed your submitted IRB application and all ancillary materials. Upon review, the IRB has determined that the above entitled project meets the requirements for exemption under the federal regulations 45 CFR 46.101 that govern the protections of human subjects.

Your research must be conducted according to the proposal that was submitted to the IRB. If changes to the approved protocol occur, a revised protocol must be reviewed and approved by the IRB before implementation. For any proposed changes in your research protocol, please submit an amendment to the IRB. Since your study falls under exemption, there is no requirement for continuing IRB review of your project. Please be aware that changes to your protocol may prevent the research from qualifying for exemption from 45 CFR 46.101 and require submission of a new IRB application or other materials to the IRB.

A goal of the IRB is to prevent negative occurrences during any research study. However, despite the best intent, unforeseen circumstances or events may arise during the research. If an unexpected situation or adverse event happens during your investigation, please notify the IRB as soon as possible. We will ask for a complete written explanation of the event and your written response. Other actions also may be required depending on the nature of the event. Details regarding the timeframe in which adverse events must be reported to the IRB and documenting the adverse event can be found in the Pepperdine University Protection of Human Participants in Research: Policies and Procedures Manual at community.pepperdine.edu/irb.

Please refer to the protocol number denoted above in all communication or correspondence related to your application and this approval. Should you have additional questions or require clarification of the contents of this letter, please contact the IRB Office. On behalf of the IRB, I wish you success in this scholarly pursuit.

Sincerely,

Judy Ho, Ph.D., IRB Chair

cc: Mrs. Katy Carr, Assistant Provost for Research

APPENDIX E

Permission to Conduct Study

9/13/2019

Natalie Hofland

L[redacted]

Dear Ms. Hofland,

Your request to conduct research in the Long Beach Unified School District has been approved. Specifically, your study, ***"A Case Study On Successful Co-Teaching In A High-Performing High School In The Southwestern United States"*** is approved with the following conditions:

a) You are approved to conduct your research with approximately 18 participants at High School where you may conduct your surveys, observations and interview, upon successful recruitment and consent procedures.

b) All potential participants must be notified that their participation in your research is voluntary and signed consent must be secured prior to soliciting data. Copies of completed consent forms should remain on file with the Unified School District sent via Email or US Mail to Research, Planning and Evaluation at 1

In accordance with the federal and state laws, Board Policy and Administrative Regulations, you agree to respect the privacy rights of participants, including their right to refrain from participation in your research project.

You may use this letter to show interested stakeholders your study has been approved. Thank you for your strict adherence to the guidelines above and best wishes in your research endeavors.

Sincerely,

Kristi Kahl

Dr. Kristi Kahl, Assistant
Superintendent Office of Research and
School Improvement Unified School
District

APPENDIX F

Request for Participation in Study

Dear Prospective Participant,

My name is Natalie Hofland, and I am a Doctoral Student in the school of Education and Psychology at Pepperdine University. I have been both a special education and a general education teacher for over 25 years. Currently, I am an administrator for the Division of Special Education in [redacted] I am conducting research examining successful co-teaching in a high-performing high school in the Southwestern United States. If you are 19 years of older and are a general education or special education teacher who co-teaches you may participate in this study.

The title of my study is A Case Study On Successful Co-Teaching in a High-Performing High School In The Southwestern United States.

If you should decide to participate in the study, you will be asked to complete a survey, be observed in the classroom, and participate in an interview. The survey will be online via Survey Monkey. A link to the survey will be sent to you via email. The survey should take about 10-15 minutes to complete. It has a series of demographic questions and then questions regarding your perceptions of co-teaching (Perceptions of Co-Teaching Survey, Austin, 2001).

Observations will occur in co-taught classrooms for one entire class period per subject area observed. The tool I will be using the CTSS Core Competencies Observational Checklist by Murawaski and Lochner (2017). It is an observational tool based upon best practices of co-teaching.

The interview portion will be 1:1 and will take approximately 15-20 minutes. The interview portion will be audio-taped. If you do not wish to be audio-taped you will not be audio-taped. Audio-tapes will be transcribed and stored in a locked file cabinet for 5 years then will be destroyed.

Please understand that your participation in my study is strictly voluntary. You will receive a coded number as an identifier for the interview, survey, and observations so your identity will be kept confidential. Theses codes will be stored in a file cabinet under lock and key. If the findings of the study are presented to professional audiences or published, no information that identifies

you personally, or your school-site will be released. The data will be kept in a secure manner for 5 years, as the data may be used by other investigators in the future.

Although minimal, there are potential risks that you should consider before deciding to participate in this study. These risks include possible discomfort in being observed and answering interview questions. You will not directly benefit from your participation in this study. If you are interested in the results of this study, please contact me and you will be provided with a summary of the findings.

If you should decide to participate and find you are not interested in completing the survey, observation, or interview process, you have the right to discontinue at any point without being questioned about your decision. If you should decide not to participate for any portion of the study please email or call me and let me know you wish to discontinue. You also do not have to answer any of the questions on the survey that you prefer not to answer—just leave such items blank. Your standing or job status will not be affected in any way based on your participation or non-participation in this study.

If you have any questions regarding the information that I have provided above, please do not hesitate to contact me at the address and phone number provided below. If you have further questions or do not feel I have adequately addressed your concerns, please contact my dissertation chairperson, Dr. Christopher Lund, at [redacted]

Sincerely,

Natalie J. Hofland
[redacted]

I agree to participate.

_____
Name

_____ _____
Signature Date

APPENDIX G

Permission to Use Austin's Perceptions of Co-Teaching Survey

Hofland, Natalie

From: Vance Austin <[redacted]>
Sent: Sunday, April 14, 2019 11:52 AM
To: Hofland, Natalie
Cc: [redacted]
Subject: Re: [EXT]: Inquiry regarding permission to use Pereptions of Co-Teaching Survey
Attachments: Austin's Survey.doc

Hi Natalie,

You are more than welcome to do that. I have attached a copy as you requested.

My best wishes,

Vance

Vance Austin, PhD
Chair, Special Education Department
[redacted]

From: Hofland, Natalie <[redacted]>
Sent: Sunday, April 14, 2019 2:59 AM
To: Vance Austin
Cc: nh[redacted]
Subject: [EXT]: Inquiry regarding permission to use Pereptions of Co-Teaching Survey

****External Email****

Dr. Austin,

My name is Natalie Hofland. I am currently a doctoral student at Pepperdine University in Los Angeles, CA. I plan on conducting a case study on successful co-teaching in a high-performing school in Southern California. I read your article on Teachers' Beliefs About Co-Teaching published in 2001 and Educators' Perceptions on Co-Teaching More Than a Decade Later by D. Bruce Campbell Jr. and Priscilla Jeter-Iles published in 2017. I am inquiring about permission to use your survey, Perceptions of Co-Teaching Survey ("PCTS") that was utilized for both studies.
Unlike both yours and Dr. Campbell Jr's research, my study is focusing on one school site in a large urban school district. Additionally, when the school was created 6 years ago the teachers were specifically hired for the purpose of co-teaching.
I may wish to make a few modifications once I see the survey. If you allow me to use your survey. I shall communicate which exact modifications I deem are necessary for my study. Additionally, I would like to modify the format, as did Dr. Campbell Jr, so I can conduct research via survey monkey.
Thank you for your consideration,

Natalie J. Hofland

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APPENDIX H

Permission to Use the Co-Teaching Competencies Observation Checklist

Hofland, Natalie

From: Natalie Hofland 'student' [redacted]
Sent: Monday, August 12, 2019 12:52 PM
To: Hofland, Natalie
Subject: Fwd: Inquiry regarding the CTSS Co-Teaching Compentencies Observation Checklist

---------- Forwarded message ---------
From: **Wendy Murawski** <[redacted]
Date: Sun, May 12, 2019 at 5:57 PM
Subject: Re: Inquiry regarding the CTSS Co-Teaching Compentencies Observation Checklist
To: Natalie Hofland 'student' <[redacted]Wendy Lochner
[redacted]

Whoops. Forgot to cc Wendy Lochner. W

On Sun, May 12, 2019 at 5:56 PM Wendy Murawski [redacted]:

Hi Natalie. I'm cc'ing my co-author Wendy Lochner. I'm sure we would both be happy for you to use the Checklist. I'm not sure if you know but we also have it online. When we use it, we put the scores immediately into CTSS online and then our reports are super easy to send to the teams and to aggregate data for research. It might make your data collection easier. If you'd like a review of it, I'm sure Wendy Lochner could set that up as she does training on CTSS all the time.

By the way, I'm at CSUN so if you'd ever like to talk about your work or any of the work I've done, I'm just around the corner. I'm working with multiple schools in southern CA so I'm delighted you are working with some as well! I look forward to hearing about your study and ultimately reading your results.

Wendy

On Sat, May 11, 2019 at 10:19 PM Natalie Hofland 'student' [redacted] wrote:

Dr. Murawski,

My name is Natalie Hofland. I am currently a doctoral student at Pepperdine University in Los Angeles, CA. I plan on conducting a case study on successful co-teaching in a high-performing school in Southern California. I have read many of your articles and literature regarding co-teaching and am particularly interested in Beyond Co-Teaching Basics. I am inquiring about permission to use the CTSS Co-Teaching Core Competencies Observation Checklist for the observation portion of my study. It is a comprehensive checklist that encompasses the critical areas of co-teaching in the classroom.

I have been both and general education and special education teacher and am currently an administrator in LAUSD. My study is focusing on one school site in [redacted] at has had co-teaching since it's inception. All teachers were hired with the knowledge that they would be co-teaching. They specifically hired teachers in special education that had expertise in math and English. They have co-teaching throughout the curriculum including Advanced Placement classes. The school is high performing and their test scores increase every year. I'm very excited to begin my research and would be honored for your permission to use the CTSS Co-Teaching Core Competencies Observation Checklist for my study.

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Hofland, Natalie

From: Natalie Hofland 'student' [redacted]
Sent: Monday, August 12, 2019 12:52 PM
To: Hofland, Natalie
Subject: Fwd: CTSS

---------- Forwarded message ---------
From: **Natalie Hofland 'student'** <[redacted]>
Date: Tue, May 14, 2019 at 7:02 PM
Subject: Re: CTSS
To: Wendy Lochner [redacted]

Hi Wendy,

Sounds great! Thanks so much.
Good luck with your dissertation. I will
contact you in June.

Thank you,

Natalie

On Tue, May 14, 2019 at 3:47 PM Wendy Lochner [redacted] wrote:
Hi Natalie,

Congrats on your study ! Please reach out and I can set you up with license to use our system to collect your data. I am finishing my dissertation as we speak and it was wonderful to export the data right out of the system into SPSS. Just let me. I will be available starting in June.

Best Regards,

Wendy Lochner

2Teach, LLC

VP, Business Development

[redacted]