11-2021

The Impact of Personality Type on Co-Teaching Pairs

Jennifer Macalady

The Impact of Personality Type on Co-Teaching Pairs

By:

Jennifer Macalady

A Dissertation submitted to the Education Faculty of Lindenwood University

In partial fulfillment of the requirements for the

Degree of

Doctor of Educational Leadership

School of Education

The Impact of Personality Type on Co-Teaching Pairs

By

Jennifer Macalady

This dissertation has been approved in partial fulfillment for the requirements for the

Degree of

Doctor of Educational Leadership

at Lindenwood University by the School of Education

Roger "Mitch" Nasser Jr. _____

Dr. Roger Nasser, Dissertation Chair Date

Dr. Tonya Thompson 11/2/21

Dr. Tonya Thompson, Committee Member Date

Rebecca Panagos 11/5/2021

Dr. Rebecca Panagos, Committee Member Date

Declaration of Originality

I do hereby declare and attest to the fact that this is an original study based solely upon my own scholarly work here at Lindenwood University and that I have not submitted it for any other college or university course or degree here or elsewhere.

Full Legal Name: Jennifer Lee Macalady

Signature: Jennifer Lee Macalady Date: 11/2/21

Acknowledgments

I appreciate the Professors at Lindenwood University who provided guidance, encouragement, and support along the journey to complete this study. Specifically, Dr. Roger Nasser, who served as Chair of this project and provided me with consistent feedback, asked thought-provoking questions and encouraged me from the time the study was just an idea to the final paper. Dr. Robyne Elder inspired me to continue to write and thoughtful ideas to consider. I appreciate Dr. Tonya Thompson, who helped shape the inquiry of this study and is a member of the Committee. I am grateful to Dr. Rebecca Panagos, who agreed to serve as a Committee Member and shares a passion for Special Education.

My family and friends continued to cheer me, keep me on track, provide comic relief, and lend me a listening ear. Each one of them kept me moving forward. Thank you to my mom for her patience and support. Several years ago, as I completed a Specialist Degree, my father challenged me by asking, “Why stop there?” I appreciate one of my biggest cheerleaders continuing to challenge me to my best. I dedicate my dissertation in memory of my mother, Joy Marie Macalady who thought I could do anything.

Finally, I appreciate colleagues in both districts. Both districts approved the study and allowed me to complete the work. The teams I work with supported me through the entire process of completing a research study.

Abstract

Co-teaching is a commonly used instructional model allowing students with disabilities access to the general education curriculum with their general education peers. General education and special education teachers instruct together, and the relationship between the two teachers is paramount to the team's success. When a co-teaching team is successful, all students benefit from the partnership. Administrators who take time to match teachers together based on personalities and learning preferences can increase the chances of success in an inclusive classroom. Unfortunately, relatively little research linking personality compatibility with effective co-teaching and relating personality similarities of the co-teachers to student engagement, student achievement, teacher planning, or teacher job satisfaction is available. The purpose of the study is to understand how personality may impact co-teaching relationships. The methodology is mixed methods. The quantitative data collected included Likert scale surveys and a personality type online survey to determine personality types. The qualitative data included focus group discussions, interviews, and classroom observations. The qualitative data collected occurred virtually as this study occurred during the COVID-19 pandemic, and the schools were closed to in-person learning. The results of the study indicate personality types do impact the co-teaching relationship. Co-teachers with similar personality types report planning together weekly, increased job satisfaction, high student engagement, and increased student achievement.

Table of Contents

List of Tables

List of Figures

Chapter One: Introduction

Background of the Study

Co-teaching is an inclusive practice in education providing students with educational disabilities access to learning in a general education classroom with the support of a special education teacher who works in tandem with the general education teacher (Mountain, 2019). Co-teaching is the most widely used model for inclusive education. (Nierengarten, 2013). The model creates an environment assuring students with special needs can access the general education curriculum. By law, schools provide access to learning opportunities for students with disabilities to progress in a subject or grade level curriculum. IDEA, or the Individuals with Disabilities Education Act, outlines this expectation for students with disabilities, and it is referred to as Least Restrictive Environment (Vanderbilt Peabody College, IRIS Center, 2021). Special education students can progress from modified assignments to typical assignments to develop skills and confidence in a co-taught class. Consequently, special education students in a co-taught environment are more likely to meet grade-level standards (Mountain, 2019).

The teaching relationship between the general education and special education teacher in the co-taught classroom plays a vital role in the success of all students. (Poonam & Haynes, 2015). When a co-teaching team is successful, students with educational disabilities and general education students will benefit from the partnership as it will provide research-based instructional practices and positive student outcomes. Unfortunately, teachers are often placed randomly in the same classroom and forced into co-teaching partnerships when administrators schedule teachers. Typically, teachers do not have a voice in co-teaching and often do not pick their co-teaching partner. This

practice may lead to potential conflicts or disagreements relating to communicating with parents, managing the classroom, and instructing. If little to no administrative planning occurs when selecting and scheduling co-teaching pairs, there is a potential for conflict within the classroom, and teachers can clash during class. (Clay, 2020). By planning thoughtfully, administrators can support all students by placing teaching teams together that will work together successfully and benefit all students.

Purpose of the Study

The purpose of the study is to understand how personality may impact co-teaching relationships. Co-teaching is the most widely used model for inclusive education (Nierengarten, 2013). Special Education and General Education Administrators often observe co-taught classrooms, support professional development opportunities in inclusion, create schedules and provide feedback to education and special education co-teaching pairs (Murawski, 2015). Successful co-teaching pairs spend time planning together and collaborating to solve problems, establish procedures, and determine each teacher's responsibility in class. Successful co-teaching teams that remain together year to year allow teachers to build their skills together and advance in practice. Administrators who provide general education teachers the opportunity to choose whether they wish to participate in co-teaching give teachers a choice and allows them to take ownership in the decision to join in co-teaching. In middle and high school, Special education teachers appreciate the opportunity to choose a field of study to co-teach. It encourages them to become well-versed in a specific subject, impacting their ability to differentiate instruction, provide accommodations and modifications specific to the subject area and assess learning (Nierengarten, 2013). Administrators who take time to

match teachers together based on personalities and learning preferences can increase the chances of success in an inclusionary classroom (Murawski, 2015).

Rationale: Personality and Work Relationships

Relatively little research is available linking personality types with effective co-teaching and linking personality similarities of the co-teachers to student engagement, planning, or teacher job satisfaction. Teachers' satisfaction with their jobs can impact student achievement and the quality of instruction the teacher provides students.

Job satisfaction is affected by motivating factors such as leadership quality, social relationships with teacher teams, and the degree of success teachers have in their profession. Just as with all white-collar careers, intrinsic and extrinsic elements impact teacher satisfaction (Akhtara et al. 2010). The Harvard Business Review reviewed numerous studies that found an average of 31% more productivity and 37% increase in sales when employees stated they were happy or content. A study completed by economists at the University of Warwick discovered a link between employee happiness and work productivity. A happy employee leads to a 12% increase in productivity. Additionally, it uncovered that dissatisfied workers are 10% less productive than satisfied workers (Edwards, 2015). The study results may lead to teachers collaborating more effectively once they know their personality similarities and differences. It may confirm that teachers who have compatible personalities often plan together, report job satisfaction, enjoy working as a team, and continue to work together for years.

Research Questions and Alternative Hypotheses

The Research Questions are as follows:

Research Question 1: How does personality type affect co-teaching relationships?

Research Question 2: Do co-teaching pairs collaborate outside of school hours consistently if they have similar personality types as measured by TypeFinder (2020) by Truity, an online personality assessment based on Myers Briggs?

The Alternative Hypotheses are as follows:

Alternative Hypothesis 1: There is a relationship between co-teaching teams who have similar personalities and difficulty finding time to plan together weekly as measured by an online personality assessment based on Myers Briggs Personality Indicator, Typefinder and pre- and post-survey data.

Alternative Hypothesis 2: There is a relationship between co-teaching teams with similar personalities and job satisfaction as measured by Typefinder (2020) created by Truity which an online personality assessment based on Myers Briggs Personality assessment, and pre- and post-survey data.

Alternative Hypothesis 3: There is a relationship between co-teaching teams with similar personality types and enjoyment of working as a team as measured by Typefinder by Truity an online personality assessment based on Myers Briggs, and pre- and post-survey data.

Alternative Hypothesis 4**:** There is a relationship between co-teaching teams with similar personality types and teams working together for over three years as measured by Typefinder by Truity, an online personality assessment based on Myers Briggs and pre- and post-survey data.

Methodology

I used a mixed-method design to collect and evaluate the data for this study. A mixed methods research design allowed me to understand better the relationships and

inconsistencies in the data (Shorten & Smith, 2017). By cross-referencing the qualitative and quantitative data after completing the study, I confirmed research results from each method. I recruited seven pairs of co-teachers who taught together to participate in the study. The first part of the study collected quantitative data. Each participant completed a 20-question Likert scale pre-survey (Appendix, Instrument 1), answering questions describing their perceptions of their current co-teaching relationships. Once the pre-survey was complete, participants received a link via email to complete a quantitative data collection tool, an online personality assessment called Typefinder (2020), to determine his or her personality type. After teachers completed the personality assessment, I began to collect qualitative data. I met with each co-teaching pair and interviewed the two teachers together as individual focus groups. During the focus group interview, the teams discussed their personality types and their perceptions of how they worked together in the classroom. I continued to collect qualitative data by observing the co-teaching classes and using an observation form to collect data on their teaching practices and interactions with each other. The last part of the qualitative data collection consisted of interviewing four teachers to enrich qualitative data already collected through focus group discussions and observations (Shorten & Smith, 2017). The last data collection method was quantitative. The teachers participating in the study completed a Likert Scale post-survey identical to the pre-survey.

Limitations

One district in the county specialized in both Special and Career and Technical education. This district delivered all special education services to 22 local school districts and offered after-school services to private schools around the county. I

conducted the study in one of the 22 school districts. This limited participation includes only the general education and special education teachers who worked in that school district in the suburbs of a Midwestern city. To conduct the study, I completed two separate approval processes by both school districts. First, the research was contingent upon developing an informational handout on the Meyers-Briggs (and by extension, other assessments, such as TypeFinder) based on the Myers Briggs Type Indicator assessment. Second, the flyer discussed the study limitations and the prospective participants before agreeing to participate in the study. This condition may have impacted the number of teachers recruited to participate. Seven co-teaching pairs agreed to be a part of the study. The request to complete the study was sent to 75 co-teaching pairs by a single email in the fall of 2020. Out of all of the general education and special education teachers who responded, seven viable teams in which both a current general education and special education teacher co-teaching team agreed to participate. Most co-teaching pairs who agreed to participate worked together for two years or less. This fact impacted the results of Null Hypothesis 4: There is no relationship between co-teaching teams with similar personality types and teams working together for over three years as measured by Typefinder (2020) by Truity, an online personality assessment based on Myers Briggs and pre- and post- survey data.

The COVID-19 pandemic impacted the study. Both school districts approved the study in August of 2020. One district set in place a one-year time limit to complete the research. The district participating in the study remained closed to in-person learning the first semester of school. There was no guarantee school would open for in-person learning second semester. To complete the study on time, I opted to conduct all

interviews, observations, and focus groups via an online video conferencing platform, called Zoom, in a virtual environment during the fall semester of 2020. This practice kept the study consistent. The participating teachers received a link to *Qualtrics* to complete the pre- and post-surveys through email communication. They completed the personality assessment through a link to the website provided to them in an email. The personality assessment, Typefinder, is free to all who choose to take it through Truity. Completing the entire study virtually was a limitation to the study. During virtual learning, teachers most likely lost opportunities to collaborate and plan as they would if they were teaching in person at a school building (Kalra, 2020).

I completed the research in the district where I am a Special Education Administrator. I communicated to potential candidates that the choice to participate was voluntary, and participants could leave the study at any time. This fact was a limitation to the study. When researchers use a work environment for a research study, it can complicate the process, due to the pecking order in the workplace, desire to advance, and pressure to keep a job (University of Virginia, 2021). While I clearly stated that all communications participation in the study was voluntary and the participants could withdraw at any time during the study, it may have been a limitation to the study, as more people may have volunteered.

Definition of Terms

Common Plan Time- For this study, common plan time is a consistent period of time the school day set aside for co-teachers to collaborate, plan, review student data, discuss instructional strategies, discuss individual student needs, review curriculum, and design assessments (Great Schools Partnership, 2013).

Co-teaching- Placing two teachers together, one general education teacher and one special education teacher, in a classroom, and both teachers work together to plan, instruct and assess students. The purpose of this model is to create an inclusive classroom (Stein, 2017).

FAPE- It is an acronym for "Free and Appropriate Public Education." FAPE is the legal right for students with disabilities to receive a free public education designed explicitly by an IEP team or 504 teams to meet specific learning needs of students with a disability (Understood for All, 2019).

IDEA- The purpose of this law was to ensure children with disabilities receive a free and appropriate public education (FAPE) with a plan aimed at providing services in special education to meet their needs, to protect the rights of parents and their children with disabilities, to help state and local school districts deliver special education services, and to evaluate the effectiveness of the educational programs for students with disabilities (U.S. Department of Education, 2010)

IEP- Individualized Education Plan; a legal document that outlines the nature of the child's educational disability, how it affects him or her, how the school will meet the child's educational needs when considering the disability. Goals in the IEP support learning are measurable, and the goals, along with the student's present level of academic performance, will help the team determine services the school will provide (Mulvahill, 2018).

Inclusive education- The acceptance of all students, regardless of ability in a classroom, leading to a sense of belonging in the school community. Students with disabilities receive the educational supports designated in their Individual Education

Programs to access age-appropriate general education in their home schools (Special School District, 2014).

General Education Teacher- Instructs all students in the general education classroom on core academics and accesses all students learning progress against state standards (IRIS, 2021).

Job Satisfaction- For this study, job satisfaction is an employee's encouraging emotional condition stemming from an employee's job experience. Job satisfaction comes from various sources, including quality of supervision, job role clarity, social relationships, and support received in the workplace (Chin, 2018).

Least Restrictive Environment (LRE)- A leading standard in the Individuals with Disabilities Education Act (IDEA). LRE plays a vital part in deciding where a child will spend her time in school and how special education services are delivered. Explicitly, LRE within IDEA requires:

> Students with educational disabilities receive their instruction alongside their general education peers to the greatest extent peers without disabilities to the maximum extent possible, and students with disabilities are not to be removed from the general education environment unless their learning progress cannot be attained even with access and use of supplementary aids and services. (Vanderbilt Peabody College, IRIS Center, 2021)

Myers Briggs Type Indicator (MBTI)- A widely used and reputable personality test often used in business and academic areas. In addition, it measures the team member's capacity to work with others (Waite, 2018).

Personality- A person's consistent way of "contemplating, experiencing, perceiving and reacting to the world" (Waite, 2018, p. 9).

Similar Personalities- For the purpose of this study, at least three of the four dichotomous letter pairs describing personality types in the Typefinder personality assessment are the same.

Special Education- Instruction uniquely designed to meet the unique needs of a child with a disability. Education can take place in classrooms, homes, hospitals, or other sites. Special education is at no cost to parents in a public education setting (U.S. Department of Education, 2017).

Special Education Teacher- For this study, a teacher specializing in the instruction of students who have an educational disability and receive special education services in a K-12 school. For this study, the definition of school is a K-12 public school.

Teacher Collaboration- Teachers take time together to exchange knowledge, ideas, information, and expertise to make learning reachable for students. Collaboration includes building relationships and constructing healthy independence between two or more people (Davis, 2020).

Teacher Planning- A practice by teachers to organize instruction, it is a practical activity. Planning is a method in which a person imagines the future, considers means and ends, and builds a framework to direct his or her future action (Wilcott, 1994).

Teaching Practice- For the purpose of this study, reflect beliefs and ethics individual teachers possess regarding the teaching and learning process (Hunter, 2018).

Typefinder Personality Assessment- A personality assessment based on Myers Briggs is free to users and assessable to all who wish to use it. There are no permission requirements to use the test for research, only that the test is used in its format online through the website (Truity, 2019).

Zoom- A live stream video conferencing service delivered through the web. Zoom software allows co-workers to meet with others online, and the service will enable people to meet by audio, video, or both. The service can allow up to 500 participants to meet simultaneously; the user can record sessions to review later. Zoom also offers a transcription service. Zoom is a cloud-based platform used in education and business (Tillman, 2021). For the purpose of this study, Zoom refers to video conferencing using both audio and video.

Summary

Inclusion in education transpires when students with and without disabilities are in the same instructional setting learning together. A few positive outcomes stemming from including all students in the classroom are students learn essential academic skills, families can see their child engaging in "typical" education, students can work with many different types of kids and learn how to embrace diversity, access the students with disabilities have natural supports of their peers and students have the opportunity to form friendships (PBS, 2003-2009). Inclusion allows all students access to a rigorous curriculum, and the challenge is suitable for all students. Unfortunately, educators did not always include students with disabilities in the general education classroom. Special

education has had a history of removing students with disabilities from the general education environment (PBS, 2003-2009). Co-teaching is a common instructional strategy providing an avenue for students with educational disabilities to access the general education curriculum. The relationship between the general education and special education teacher in the co-taught classroom is vital to all students' success (Poonam & Haynes, 2015). When a co-teaching team is successful, students with educational disabilities and general education students benefit from the partnership as their instructional practices will generate positive student outcomes. This study examines the role personality type plays in the dynamics of co-teaching. If education teachers share similar personality traits, they will plan together, share similar classroom management styles, and will find working together increases their job satisfaction. Following is a brief history of inclusion, special education, personality assessments, and their importance to team success. The history of inclusion lays a foundation for the research and how it ties to the instructional practice of co-teaching.

Chapter Two: Literature Review

The purpose of the study was to understand how personality may impact co-teaching relationships. Special education and general education administrators often observe co-taught classrooms, support professional development opportunities in inclusion, create schedules and provide feedback to education and special education co-teaching pairs (Murawski, 2015). Successful co-teaching pairs spend time planning together and collaborating to solve problems, establish procedures, and determine each teacher's responsibility in class. Successful co-teaching teams that remain together year-to-year allow teachers to build their skills together and advance in practice. Administrators who provide general education teachers the opportunity to choose whether they wish to participate in co-teaching give teachers a choice and allow them to take ownership in the decision to participate in co-teaching. In Middle and High School, special education teachers appreciate the opportunity to choose a field of study to co-teach. It encourages them to become well-versed in a specific subject, impacting their ability to differentiate instruction (Nierengarten, 2013). Administrators who take time to match teachers together based on personalities and learning preferences can increase the chances for success in an inclusionary classroom (Murawski, 2015)

Inclusion

Inclusion in education transpires when students with and without disabilities learn together in the same classroom. A few positive outcomes that come from including all students in the same environment are students learn essential academic skills; families can see their child engaging in "typical" education, students can work with many different types of kids and learn how to embrace diversity, access the natural supports of

their peers and students have the opportunity to form friendships (PBS, 2003-2009). In addition, inclusion allows all students access to a rigorous curriculum, and the challenge is suitable for all students. Unfortunately, students with disabilities have not always participated in the general education classroom. Special education has had a history of removing students with disabilities from the general education environment (PBS, 2003-2009).

History of Special Education

Understanding the history of special education is essential to appreciate inclusion and how we arrived where we are today. A hundred years ago, society excluded people with disabilities from public education and the workforce. A landmark year in the history of special education was 1918; this was the year states ratified compulsory education laws, meaning children between certain ages had to attend school. In 1919, a noted case from the Wisconsin Supreme Court, *Beattie v Board of Education*, held a local school board's decision to exclude a student with physical disabilities from attended school. The child's name was Merritt Beattie, and while he was able to complete assignments, his presence in the classroom was said to "distract attention" from the other students (LaNear & Frattura, 2007).

The history of special education is rooted in the Civil Rights movement. Over the last 70 years, a transformation has occurred in special education and how services are delivered. An event influencing Special Education occurred in May, 1954, when the U.S. Supreme Court ruled it is unconstitutional to separate and educate students by race in *Brown v. Board of Education of Topeka* (Administrative Offices of the U.S. Courts, 2001). This court case influenced special education in the years ahead when it determined

separately is not equal. Just as separate is not equal applies to students of all races, it also applies to students of all abilities. Another event influencing the education of students with disabilities occurred in April, 1965, when an act was signed into law by Lyndon B. Jonson, entitled "The Elementary and Secondary Education Act or ESEA." ESEA's primary focus was to ensure all children have access to education and provided federal funding to students who are in poverty (U.S. Department of Education, 2010).

In the 1970s, two monumental cases paved the way for students with disabilities to access education in the same manner as their non-disabled peers. First, on October 8, 1971, the District Court of Eastern Pennsylvania ruled in favor of the Pennsylvania Association of Retarded Children in the Court Case: *Pennsylvania Association for Retarded Children (PARC) v Commonwealth of Virginia.* The ruling struck down local laws that excluded students with disabilities from accessing public education. Instead, students receive their education in "publicly funded school settings" where schools can meet their educational needs (U.S. Department of Education, 2010). Second, on December 17, 1971, the U.S. District Court for the District of Columbia ruled in favor of Mills in *Mills v. Board of Education of the District of Columbia*. This case made it unlawful to exclude students classified as "exceptional," which included students with behavior, learning, and mental disabilities. After this ruling, students with disabilities participated in the public education system. Following the court cases, Congress became involved in an investigation to determine how many students with disabilities had not received education services (U.S. Department of Education, 2010). Congress revealed through their inquiry 1.75 million children not enrolled in school, and 2.5 million

received insufficient education. These two cases dramatically changed the way students with disabilities accessed education.

In 1975, Congress passed Public Law 94-142, and all states receiving federal monies for education were mandated to deliver equal access to public education. Another name for Public Law 94-142 is the Education of All Handicapped Children Act. This law ensured children with disabilities receive a free and appropriate public education (FAPE). The plan aimed at providing services in special education to meet their needs, to protect the rights of parents and their children with disabilities, to help states and local school districts deliver special education services, and to evaluate the effectiveness of the educational programs for students with disabilities (U.S. Department of Education, 2010). As stated earlier, before IDEA, over four million children with disabilities did not have appropriate access to public education. As a result, many children could not receive public education. At the same time, other students were positioned in classrooms separated from their general education peers, or educators placed students with disabilities in regular classrooms without providing support for their particular needs (American Psychological Association, 2021).

A court case that challenged Free and Appropriate Education as defined by the Education of All Handicapped Children Act is *Hendrick Hudson Board of Education v Rowley* in 1982. Amy Rowley was a deaf student receiving special education services from Hendrick Hudson School District. The parents filed suit in a Federal District Court requesting to reassess the findings of a New York administrative proceeding denying the child receive an authorized sign language interpreter to accompany their daughter in all classes. The school delivered services to the child by providing her with a hearing aid

and tutoring services. When asked by the parents to provide a sign language interpreter, they denied the request. The Court of Appeals found in favor of the parents, as she was not achieving academically as well as she would if she did not have a handicap (Cornell Law, 1992). The Supreme Court reversed the Court of Appeals and established a sign language interpreter was not needed for the child to benefit from education. The Act only requires the child to benefit from specialized educational services and make education meaningful to satisfy FAPE. It does not require the student to achieve at a level as she would without a disability (Cornell Law, 1992).

The Education of all Handicapped Children's Act is now the Individuals with Educational Disabilities Act or IDEA. IDEA received support in August 1986, when the Handicapped Children's Protection Act was signed, giving parents a voice in creating their child's IEP or Individual Education Plan. The Individual with Disabilities Act includes four subsections. Part A outlines the foundation of the Act, contains definitions of frequently used terms, and provides information regarding the Office of Special Education programs (American Psychological Association, 2021). Part B guides states regarding educating students with disabilities, ages 3 through 21. Funding is available through IDEA to states and school districts following the six principles of IDEA found in Part B.

The first principle is all children are entitled to free and appropriate education (FAPE). The second principle is the right to an evaluation. Suppose school staff member suspects a child of having an educational disability. The suspected disability is having a negative impact on the child's progress in learning or behavior. In that case, the student has a right to an evaluation to determine if he or she has an educational disability in the

suspected areas. The Education of all Handicapped Children's Act is now called the Individuals with Educational Disabilities Act or IDEA. The third principle states if a student has an educational disability, he or she will receive an individual education plan or IEP. The IEP summarizes specific services the student will receive in special education and the goals students may achieve because of receiving special education services. The fourth principle supports the education of students with disabilities in the least restrictive environment. Students with disabilities are served in a regular education setting with their non-disabled peers to the greatest extent possible (American Psychological Association, 2021). The fifth principle includes the condition that students and parents are involved and provide feedback in the IEP process. The sixth principle outlines steps families can take if they feel the IEP is unsuitable for the child or believe the child is not receiving appropriate services (American Psychological Association, 2021). Part C discusses the need for early identification of students with disabilities. Part D summarizes national movements to improve the education for students with disabilities.

Oberti v Board of Education, in 1993, was a court case that further defined perimeters of determining the Least Restrictive Environment or LRE. Raphel Oberti was an eight-year-old child with an educational disability of Downs Syndrome. The school district contended Oberti's behavior impeded the learning of others and the district recommended he receive educational services outside of the school in a separate setting. The parents disagreed and sought placement in the school with services to include receiving educational services in a general education environment. The Court found in favor of the parents. Within the court, conclusions supported all children with disabilities

access to blended experiences to help them function successfully. Inclusion supports their non-disabled peers as they learn to interact with students with disabilities. The court noted inclusive public education offers considerable benefits for all students and increases the prospect of students with disabilities transitioning to become independent and equal members of society. In the court case, the school district failed to prove Oberti's behaviors impeded the learning. The court directed the school district to work with Oberti's parents to create an IEP appropriate for Oberti (Justia U.S. Law, 2021). As a result of this case, the court adopted a two-part assessment to decide if a child is in the least restrictive environment. First, to determine if the school meets the least restrictive guidelines, a school district must make sufficient efforts to assist a child with disabilities in a regular classroom and ensure learning benefits are accessible to the child compared to a special education class. The school considers the possible adverse effects of inclusion of the child with a disability on students without disabilities. Second, suppose a student must receive education outside of a general education class. In that case, attempts to include the student with a disability in the general education environment, as much as possible. In summary, students with disabilities are to be included in the regular environment as much as possible, and removal from the general education environment occurs only when students cannot participate satisfactorily, even with supplemental aids (Arons, 2021).

Not all students with a disability will qualify for special education under IDEA. For a student to be eligible, "the child must have a disability and, as a result of that disability, will require special education services to make progress in school" (Lee, 2014-2021, p. 5). There are 13 eligible categories of educational disabilities under IDEA. "The

thirteen eligible categories are autism, deaf-blindness, emotional disturbance, hearing impairment, intellectual disability, multiple disability, orthopedic impairment, other health impairment (this category includes ADHD), specific learning disability, speech or language impairment, traumatic brain injury, and vision impairment" (Lee, 2014-2021, p. 5). Approximately seven million children ages 3 to 21 qualified for special education services under IDEA in the 2017-2018 school year. Seven million students were about 14% of students served in public education (Lee, 2014-2021).

In 1990, The American Disabilities Act was passed by Congress and signed into law by George Bush. Although it did not replace Section 504 of the Rehabilitation Act, it supports it. The ADA is a civil rights law banning discrimination against people with disabilities. It protects them as they pursue jobs, school, and transportation in public and private businesses open to the public. The goal of the Act is to ensure people with disabilities are allowed the same opportunities and privileges as those without disabilities (American Disabilities Act National Network, 2020). According to the ADA, the definition of a person with a disability is:

> A person who has a physical or mental impairment that substantially limits one or more major life activity. This includes people who have a record of such an impairment, even if they do not currently have a disability. It also includes individuals who do not have a disability but are regarded as having a disability. (American Disability Act National Network, 2020, p. 1)

There are five sections of the American Disabilities Act. Title 1 discusses employment and the expectation employers provide reasonable accommodations to

people with disabilities. Title 1 ensures people with disabilities have the same opportunities as those without disabilities (ASHE Higher Education Report, 2013). Title II refers to State and Local government services and activities and prohibits discriminating against a person with a disability. This section applies to all state and local services, including transportation, schools, parks, and universities (ASHE Higher Education Report, 2013). Title III of the Act addresses private establishments that conduct business with the public and requires them to provide accommodations to people with disabilities even if they do not accept federal funds. The Act does not need companies to rebuild facilities but makes easy adjustments to the existing facility that are not costly to the owner. Title IV requires phone services to provide services for people who have a speech or hearing disability. The opportunity to communicate by phone is equal to those who do not have disabilities. The last section, Title V, covers various specifications, including protection from retaliation if a person with a disability brings a lawsuit against a business (ASHE Higher Education Report, 2013)

In 1997, President Clinton recertified IDEA and expanded it to include a guide for the least restrictive environment or LRE. LRE guides schools to ensure students with disabilities have access to the curriculum used to instruct their non-disabled peers and for students with disabilities to participate in the same classes as their general education peers to the greatest extent possible as outlined in their Individual Education Plan or IEP. Congress amended IDEA in 2004 to include several fundamental changes. It added a requirement for special education teachers and requiring earlier intervention for children with disabilities (U.S. Department of Education, 2010). In the Least Restrictive Environment or LRE, the 2004 amendment clarified the expectation that each public

agency ensures each child with a disability receives supplementary services. In addition, supports identified in the child's IEP are needed for the child to participate in extracurricular activities to the maximum extent possible for that child (Wright, 2006). Another notable clarification is in the section entitled FAPE or Free and Appropriate Education. The revisions to FAPE make clear that free and appropriate public education is available to each child with a disability in need of special education and related services even if a student has not failed a course or has been retained in school (Wright, 2006).

Inclusive Education

Inclusive education means that all students are full and accepted members of their school community, in which their educational setting is the same as their non-disabled peers, whenever appropriate (Inclusive Schools, 2020). However, it looks different for students with disabilities based on their educational programming. The ideal picture of inclusion would encompass students with disabilities accessing their grade-level general education classroom, high expectations for all students, the curriculum for all supports the state standards, and children with disabilities are not receiving a different curriculum. Individual support for students with disabilities is available as the help is needed (Giardina, 2019). In addition, special education students access services in the general education environment. Students are not removed from the class to receive services (Valeo, 2008).

There are several recent research studies validating inclusion in education. A study published in 2013 examined the connection between achievement in math and reading and the number of hours a student with a disability spends in the general

education setting. The research study included 1,300 students with disabilities in 180 school districts. The participants were between the ages of six and nine years old. The research findings suggested a compelling positive correlation between the number of hours a student with disabilities spends in general education and achievement and math and reading (Cosier et al, 2013). A literature synthesis published in 2010 found peer tutoring is an effective instructional strategy for raising achievement for students with disabilities between sixth and twelfth grades. The synthesis integrated 12 studies published in academic journals between 1997 and 2007. The achievement rose for students regardless of the educational disability, and students benefited from peer tutoring as an instructional strategy in regular education and special education classrooms (Okilwa & Shelby, 2010). A comparative study published in 2012 compared a control group of 34 students with an educational diagnosis of intellectual disability. All received special education support in a general education classroom, and 34 similar students received special education services in special schools. For two years, the study compared growth between the two groups in academic and adaptive behavior identified with an educational diagnosis of intellectual disability. The group receiving education in a general education setting saw increased literacy with adaptive and math skills matching those receiving services in a special education setting. The research study concluded that general education settings with supports for students diagnosed with an intellectual disability are appropriate (Dessemontet et al, 2011).

Teachers in an inclusive setting benefit from using research-based strategies that will reach all students. Examples of a research-based approach include cooperative learning and peer tutoring. Differentiating the way instruction is delivered is essential in

inclusive classrooms. All students benefit from receiving information in a variety of ways. General and special education teachers are familiar with the accommodations and modifications in each student's individualized Education Plan (Giardina, 2019). Planning to provide external supports in advance to the student needing support is an effective way to manage a student's instructional needs with an educational disability in a general education setting. An inclusive classroom may provide different support options, such as peer support, sporadic support by a teacher or teacher assistant, or the help of a special education teacher collaborating in the classroom formally with the general education teacher. In an inclusive classroom, both the special education teacher and general education teacher share responsibility for all students. Special education teachers participate in professional learning communities with general education teachers in inclusive schools. Staff is knowledgeable of the IEPs for students with educational disabilities (Giardina, 2019). The amount of time students with disabilities spend in a general education environment can vary based on the level of student's educational needs. There is a continuum of inclusion for students with disabilities who participate in the general education environment 100% to students who participate in the general education environment less than 40% of the day. They are educated separately in a different classroom, with students of various abilities receiving special education services.

Co-teaching

One instructional model frequently used in classrooms to support students with disabilities in a general education classroom is co-teaching. It pairs together a general education and special education teacher to teach together. The model offers specialized

instruction to students with disabilities in a general education setting, and this provides access to the same academics as their general education peers (Samuels, 2015). Students can learn from their classmates both academically and socially. Teachers use materials more effectively, and there is no duplication of efforts. The practice of co-teaching is not novel or new. Different techniques of "team teaching" started in the 1960s. Co-teaching materialized about 40 years later to address the federal laws around IDEA and No Child Left behind in 2001 (Scruggs & Mastropieri, 2017). The laws address the environment in which children with disabilities receive their education. To the maximum extent possible, special education students remain in the regular classes and receive their education with non-disabled peers. Removal of a child with disabilities happens if, even with supplemental aids and services, regular classes cannot be achieved satisfactorily (Special Education Rights and Responsiblities, Disability Rights of California, 2021).

Co-teaching meets the needs of including students with educational disabilities in the general education classroom. A special education teacher can provide many of the students' needs to successfully access the general education curriculum (Scruggs & Mastropieri, 2017). Both the general education and special education teacher are accountable for instructing all the students in the class. The overall goals of a co-teaching classroom should include increased participation of students with disabilities in the class and improve the academic performance of students with disabilities (Nichols, et al., 2010). Students with disabilities receive special education services in a general education classroom and access to highly qualified content area teachers. Schools arrange for special education and general education teachers to instruct and collaborate as a team to meet the needs of all students. This model creates a need for general education

and special education teachers to work together and collaborate to support all students. A successful co-taught classroom is contingent on the co-teacher's ability to work as partners, including the special education teacher aiding in designing and executing research-based strategies supporting students with disabilities (Scruggs & Mastropieri, 2017).

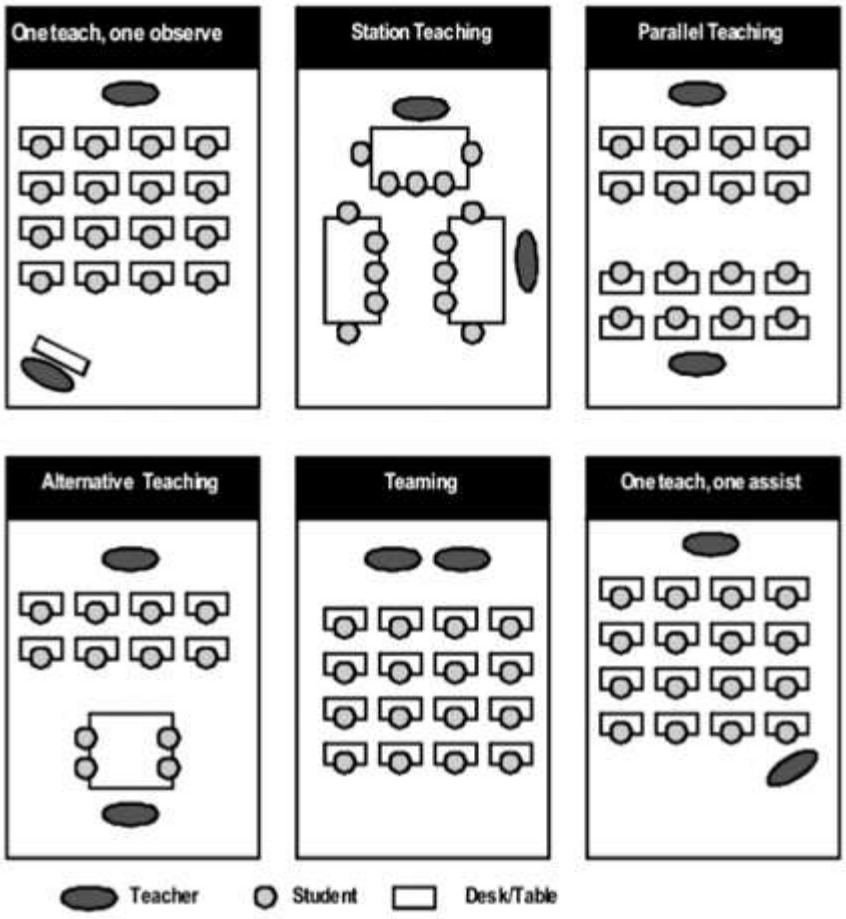
Special education and general education teachers can improve the success of their shared classroom by communicating well, planning together, and by the special education teacher taking the initiative to master the curriculum. Communication skills are vital to a co-teaching partnership. Practicing active listing, creating instructional goals together that are clear to each person, summarizing plans and objectives, and monitoring progress together in the classroom are all elements of effective communication. In addition, teachers have a greater likelihood of seeing success in the partnership if they are plan instruction together. Finally, the special education teacher benefits from learning the content and curriculum taught in the classroom. Knowing the content aids the special education teacher to determine which research-based strategies to apply (Scruggs & Mastropieri, 2017).

There are six different instructional models used in a co-taught classroom by the general education and special education teachers. The six models are One Teach, One Observe, One Teach, One Assist, Parallel Teaching, Station Teaching, Alternative Teaching, and Team Teaching. Each of the models provides ways to support all students in a co-teaching setting. When deciding which model to use for instruction, co-teachers benefit by considering the purpose. Co-teachers benefit by considering the purpose of each model and how it will add value to the lesson before selecting the model (Cassel,

2019). Following is a brief overview of each co-teaching model, when to implement it, positive attributes, and challenges for each co-teaching method. Figure 1 illustrates each of the co-teaching models.

Figure 1

The Six Models of Co-teaching



Note: (Friend & Bursuck, 2009)

One Teach and One Observe allows one teacher to teach the content while the other teacher observes students and takes data. Teachers may use this model to monitor and record student behavior and to evaluate instructional delivery. What data to collect is predetermined by the teachers before class starts. One Teaches, One Observe provides teachers the opportunity to concentrate on student needs, collect data to monitor goal

progress for students' IEPs, and watch the effectiveness of their skills. Teachers who are new to co-teaching tend to overuse this approach, and it requires teachers to know what data to collect and how to analyze the data once collected. Teachers should limit the use of this model in the classroom (Utah State Office of Education, 2011). One can find a diagram of One Teach and One Observe in (Figure 1).

One Teach, One Assist allows one teacher to lead instruction while the other teacher assists students (Cassel, 2019). This model allows one teacher to circulate through the classroom, monitor student behavior, collect data, and assist students. This model is used frequently by teachers new to co-teaching. As a result, students can seek out help relatively quickly during class. Using this model, teachers benefit from switching roles, varying who instructs the course and who assists. A few challenges to this model include teachers overusing the model and falling into a traditional classroom mode. Students may view the assisting teacher as a teacher's aide (Utah State Office of Education, 2011). An example of One Teach, One Assist is provided in (Figure 1).

Parallel teaching divides the class into two, and both teachers instruct the students on the same content simultaneously (Cassel, 2019). Go to (Figure1) to see an illustration of Parallel Teaching. Teachers divide students into two equal groups. By dividing the class in half, teachers can provide more support, actively supervise fewer students, and have an increased opportunity to respond in class. Groups do not rotate when using the parallel teaching model; students remain with the same teacher. Challenges to implementing this model have sufficient space in the room, and two teachers instructing simultaneously may distract some students (Utah State Office of Education, 2011). Nevertheless, educators recommend using this model frequently during instruction.

Teachers split the content and students when using the Station Teaching model. This strategy allows students to rotate from one teacher to another as they teach different aspects of a concept or lesson. Teachers have the flexibility to create additional stations enabling students to work independently, with a peer tutor, or to use technology. Station Teaching provides for a smaller student-to-teacher ratio, increases opportunities for students to respond and engage in content, and allows teachers to supervise students actively. This strategy is recommended for frequent use by middle and high school teachers. Both teachers must know the content area for station teaching to be effective. Station Teaching requires preparation and planning by both teachers because each station must operate independently to implement Station teaching effectively (Utah State Office of Education, 2011). To reference Station Teaching, see (Figure 1).

The model, Alternative Teaching, provides an opportunity for one to instruct a large group, while another teacher works with a smaller group needing specialized instruction (Cassel, 2019). When grouping people, avoid placing the same students together and do not create a small group daily. Some reasons for pulling a small group apart from the main class are pre-teaching, re-teaching concepts, providing enrichment, or using a different instructional strategy to deliver content to a smaller group of people. Alternative Teaching is an excellent strategy to use when the students vary in their skills and content knowledge, to monitor student behavior closely, and the small group teacher can provide immediate feedback. However, a few drawbacks to using Alternative Teaching are the same students with educational disabilities may be pulled consistently into the small group, and one teacher may always control the content. Therefore, limit the

use of this model in the co-teaching classroom (Utah State Office of Education, 2011). One can find an example of Station Teaching in (Figure 1).

Team teaching occurs when both teachers instruct the class together (Cassel, 2019). Both teachers integrate instruction and present it to the whole class. They may alternate presenting or facilitating during team teaching. While this strategy is the most challenging for teachers, it is the most rewarding to them. This model allows each teacher to demonstrate their content expertise to students, allows constant collaboration between the instructors, and energizes the class. To implement teaming effectively, teachers need to have time to plan together; it requires teamwork. Each teacher must possess content knowledge, and they both need to pace and facilitate instruction effectively (Utah State Office of Education, 2011). To find a picture of Team Teaching, see (Figure1).

Challenges Facing Co-teaching

Some challenges impact the co-teaching classroom. Understanding the roles and responsibilities of each teacher in the co-taught classroom, lack of training for teachers co-teaching, inadequate plan time, assessment, and the relationship between co-teachers are all areas that can influence the effectiveness of a co-taught classroom (Dieker & Murawski, 2003). Delivering professional development to teachers on inclusion, creating master schedules for teachers and students, and considering co-teachers help reduce difficulties implementing the co-taught model in schools (Murawski, 2015). Creating alternative assessments for students and developing ways to measure the effectiveness of the co-teaching classroom aids in reducing problems relating to assessment (Dieker & Murawski, 2003). Taking the time to match teachers together based on personalities and

learning preferences can increase the chances of success in an inclusionary classroom (Murawski, 2015).

There is a typical pattern of teachers conveying disappointment in the co-teaching model. Frustration in the co-teaching model is often the result of a lack of professional development in inclusion, and teachers do not have a common understanding of the roles of each special education and general education teacher when co-teaching. When this happens, what can happen is the special education teacher taking on the role of a teacher's assistant or paraprofessional in a general education classroom (Dieker & Murawski, 2003). The co-teaching model recognizes both teachers as vital instructors in the classroom who work together to support all students in learning. Professional development in this area is one key to a successful program to implement co-teaching successfully in schools. Co-teaching requires more than just learning to work together respectfully. It requires a paradigm shift from owning the front of the room to sharing space, from sending students with special education needs out of the classroom to differentiate for diverse learners thoughtfully. Before working on collaboration and communication skills, educators need to embrace the mindset that inclusion is an issue of both equity and social justice. When teachers and administrators think of co-teaching in this way, they will be more likely to commit to co-teaching (Murawski, 2015, p. 31). Schools can create a culture of inclusion by establishing roles and responsibilities for each teacher in the classroom, initiating a collaborative culture, and providing professional development.

Delivering content in an inclusive environment in a secondary classroom can face challenges absence of teacher planning time (Dieker & Murawski, 2003). When teachers

share a class, it is essential to have the ability to plan and prep together. Inadequate plan time for co-teaching is often a significant obstacle in the co-teaching model. When an administrator builds the master schedule and does not consider plan time for co-teachers, the general education and special education teachers will not have the same time allocated each day in the schedule to plan. One teacher may have a designated plan time first hour, while the other's plan time is the fifth hour, making it nearly impossible to plan during the day. When creating the master schedule for teachers, it is important to review the designed co-teaching teams and ensure teachers have a common plan time built into the day. Common plan time is more likely to occur if special education teachers are designated to teach in specific content areas (Murawski, 2015). When planning for instruction, when both teachers review the needs of students with IEPs together and implement instructional strategies to support them, the opportunity for students with disabilities to succeed in the classroom increases (Dieker & Murawski, 2003).

High-stakes testing impacts all classrooms and can impose challenges in a co-taught classroom. A study conducted by Valeo found that many teachers believe inclusion is challenging to implement and creates a challenge with time to stay pace with the curriculum requirements (Valeo, 2008). Teachers can feel pressured to instruct quickly to cover the curriculum and prepare students for assessments. In an inclusive classroom, the special education teacher and general education teacher may have experience discourse as they problem-solve through covering the curriculum while meeting the needs of special education students. Special education students benefit from the rigor of the general education classroom. However, suppose a special education student has not experienced inclusion in the general education curriculum

throughout his or her K-12 experiences. In that case, he or she will lack prior knowledge to demonstrate proficiency on state and national assessments adequately. When considering evaluation, consider alternative ways to access learning in addition to high-stakes testing. Principals can assess the effectiveness of the co-teaching classroom, and a possible way to evaluate the impact of the co-teaching pair is to create pre- and post-tests relating to the area of instruction (Dieker & Murawski, 2003).

The relationship between the special education and general education teacher is a vital aspect in the success of this model of inclusion. Individual personalities impact building collaborative relationships and effective teaching teams (Poonam & Haynes, 2015). Educators often compare co-teaching relationships to a professional marriage; teachers work together to deliver instruction (Sileo, 2011). Administrators expect teachers who co-teach together to communicate effectively to provide education, set direction in the class, plan lessons, implement classroom management strategies together, analyze data, make accommodations and modifications for students with IEPs and differentiate instruction all students can learn. Unfortunately, a lack of communication between general education and special education teachers can occur. As a result, regular education teachers believe their principal should intervene to ensure special education teachers cooperate with them to help the students in an inclusive setting. They expect the principal to bridge their communication. In contrast, the principal feels they should communicate directly to each other, work together, and clarify their roles in the classroom regarding the instruction of students (Valeo, 2008). Co-teaching involves two people working together who may have varying teaching styles and personalities. The relationship between the general education and special education teacher is constructed

based on professionalism, teamwork, and the shared goal of student success. Placing two people together that do not get along well or work well together hijacks the co-teaching team. When forming teams, ask teachers who they want to work with to see if co-teaching pairs will naturally develop. If this is not possible, then create an opportunity for teachers to complete surveys relating to teaching styles, learning preferences, and personalities, or personal dispositions (Murawski, 2015).

Collective Efficacy

Collective efficacy is teachers' shared conviction or belief that they can make a positive difference in their student's academic achievement and lives. A well-known researcher from Australia, John Hattie, recently rated this practice as the number one practice teachers impact student achievement. Collective efficacy has an effect size of 1.57 (Visible Learning, 2021). Effect size is the numerical value placed on various educational practices influencing student achievement. Hattie researched includes 195 influencers on student achievement. The average effect size of an instructional strategy is .4, which is considered the base effect size for positive student gains. An effect size below .4 will have a negative effect on student achievement. Collective efficacy ranks higher in positive gains for students than giving feedback to students (.70) or classroom discussion (.82) (Visible Learning, 2021). When teachers believe that together they can impact student outcomes, the result is higher levels of academic achievement. It is most beneficial when teacher collaboration focuses on what happens in the classroom, the educational needs of students, whether instructional strategies work in the classroom, and any adjustments to instructional practices to improve student achievement. Teachers who collaborate can learn from each other and construct universal understandings (Donohoo

et al., 2018). Co-teaching allows teachers to consistently collaborate as they share students and are in the classroom together.

Teachers must have a good understanding of themselves and each other to work effectively as a team. Personality tests help people better understand themselves and others. If a person understands one's personality preferences and how they affect others, this understanding will help him work more effectively. When team members understand each other's behavior and the working style preferences of each teammate, the team can work effectively together (Waite, 2018).

People have an inclination of liking other people who are like them. There are different reasons similar people tend to like each other. People who share interests enjoy spending time together; one person who is similar to another or shares common interests perceives the other person as liking him or her (Seidman, 2018). Researchers suggest several reasons why similar people like each other. One thought is consensual validation which is meeting others who share mindsets builds confidence. People who compare their viewpoints and attitudes with others feel validated when others agree with them. Researchers found that when people validate one another, they are more likely to trust and respect one another. (Singh, 2017). A second reason is a cognitive evaluation. Cognitive evaluation is when a person shares a common interest with another. That person has an optimistic view of the other because he or she has a favorable view of themselves. A third idea is a certainty of being liked. If one person shares many similar attitudes and beliefs with another, they will be apt to like each other. People who have things in common have shared interests to talk about, and they can participate in activities or have discussions about those interests. A fourth theory is people who alike tend to

have fun and enjoyable interactions. It is easy for people to talk to each other if they share a common hobby or viewpoint. The fifth reason outlined by researchers is self-expansion opportunity, or the chance to grow and expand oneself. At first glance, one would think there is an increased opportunity to develop oneself by interacting with others that do not have similar attitudes, beliefs, or backgrounds. However, people do not seek out others who are not like them. Therefore, the chances of growing and developing are greater with those who share their interests (Hampton et al., 2019).

Teacher Job Satisfaction and relationships with colleagues

Many researchers have investigated what leads to teacher job satisfaction. Most of these studies site teacher satisfaction as visibly connected to intrinsic motivation factors. The main element discovered to contribute to job satisfaction is the component of working with children. Other factors found include cultivating relationships with children, the academic challenge of teaching, the ability to work independently, opportunities to try different concepts, contributing to decision making and reform efforts in schools, cultivating social relationships with colleagues, and the opportunity to grow in the field (Zembylas, 2006). In a research study completed in 2010 by Hemphill, the researcher questioned teachers about relationships they shared with instructional colleagues and administrators. The study found teachers valued their relationships with fellow teachers over administrators. Teachers surveyed valued relationships with colleagues as provided both personal and professional support. Instructors tended to assist each other with goal setting and sharing resources and ideas. In the study, there were a few whose colleagues negatively impacted personal job satisfaction. They reported that their colleagues did not care about the students, and teachers perceived their

colleagues as self-centered. Overall, teachers valued their relationships with their colleagues and rated these relationships high on the scale of why the study participants remained in the teaching profession instead of pursuing a different career (Martson, 2010).

Teacher Isolation and Burn Out

Professional isolation can occur when a person feels a lack of community and connectedness to others at work. Researchers conducted a study in 1997 sampling 1,100 teachers in Quebec and found teachers in all levels of K-12 education who reported professional isolation also reported occupational stress (Dussault et al. 1999) A study conducted in 2017 examined reports of teacher burnout among high school instructors. The 2017 study focused on factors that included: teacher's self-efficacy for taking care of classroom management issues, their feelings of connectedness to the school community, students and colleagues, teacher's feelings of safety at work, and demographics of teachers. As the study related to other staff members, it found that staff who felt a sense of belonging in their school communities and felt connected to their students and principals tended to feel less professional burnout. The 2017 study is consistent with other research conducted on school climate. It suggests the relationships inside the building are essential to building a positive school community and atmosphere, which can reduce teacher burnout (O'Brennan, et al. 2017). Research by Johnson, Kraft, and Papay in 2011, discovered teacher satisfaction is often associated with accounts of collaborative relationships with colleagues, effective administrative leadership, and a culture built on trust and respect (as cited in Johnson, 2011). A study conducted in 1998 by Kilgore and Griffin stated new teachers in the special education field did not feel

connected and supported by the general education teaching staff from a special education teacher focused on helping students with emotional and behavioral challenges. Her special education role changed later that year, and she began working with students in an inclusive setting working with students with learning disabilities. She felt less isolated when she collaborated and worked with the general education staff in an inclusive environment (Schlichte et al. 2005).

Teacher Planning

An essential component of a successful co-teaching partnership is co-planning. Co-planning allows the teachers to meet and discuss how they can leverage each of their teaching strengths as special and general education teachers to benefit all students. When co-teachers plan together, they can parallel each other in the classroom and allow each teacher to take a visible role during instruction. Parity gives the impression both teachers as equal, and all classroom duties split equally. Shared responsibilities include instructional delivery and planning, classroom management and discipline, grading, and working with parents (Sileo, 2011). Co-planning prevents co-teachers from falling into a rut of one teacher consistently instructing students by teaching content and the other teacher always assisting students in the classroom (Pratt et al, 2017).

It is good practice for co-teachers to start collaborative conversations around planning before school begins for the year. Both special and general education teachers share instructional responsibilities, and the teachers need to meet together to discuss topics vital to the success of the classroom. These topics include the lesson design, which teacher will instruct at different times during the lesson, instructional strategies, and how to make accommodations and modifications for students in the class (Pratt et al.

2017). Additionally, identifying how to assess students to ensure students have gained the necessary skills and abilities after participating in the lesson (Sileo, 2011).

Teachers should begin co-planning collaboration by reflecting on the end of course goals, creating common benchmark assessments, and creating learning targets based on the state standards. Once educators establish learning objectives together, instructors can plan when to assess students on learning. Online calendars and documents make it easy to prepare together if teachers cannot be in the same room. After planning assessments, co-teachers can break down the year of learning into units of instruction and then into weekly learning goals. At this point, instructors can determine how to divide the lesson will between them (Pratt et al., 2017).

There are several challenges co-teachers can run into when planning. Teachers may have differing views on instructional philosophies and instructional strategies. Co-teaching pairs may have difficulty establishing a weekly or daily routine to meet together to collaborate consistently through the year. Sometimes, teachers do not share a common plan time, making it difficult to meet during the day. Other roadblocks impeding effective planning during the sessions may include distractions from other educators, off-track conversations about students, and contrasting planning styles (Pratt, et al. 2017). Using an agenda to stay on track during collaboration, setting aside specific days to plan, sharing documents online, and working with administrators to ensure co-teachers have a standard plan time can reduce challenges of co-planning (Pratt, et al. 2017).

The Myers Briggs Personality Type Indicator

The Myers Briggs Type Indicator is a widely accepted personality inventory based on Carl Jung's theory of psychological type. Isabel Briggs Myers and her mother

Katherine Briggs came across Carl Jung's psychological type theory and became fascinated by the research. They studied his work for 20 years and tested the principles of type theory on family and friends. As the two continued to study the theory during World War II, they became committed to creating an indicator form to assist people in finding careers that fit their interests based on their personality types. Isabelle Myers tested different personality type indicator forms in the 1950s on approximately 5600 medical students and monitored them to track chosen specialty areas, abilities, and accomplishments in school (McCaulley, 1990). Other researchers noticed the Myers Briggs Type Indicator and published dissertations about personality inventories in the 1960s and 1970s. Consulting Psychology press published The MBTI for application in 1975. That same year, Isabelle Myers and another researcher, Mary McCaulley, created a nonprofit center for training and research around the Myers Briggs Type Indicator, The Center for Applications of Personality Type (McCaulley, 1990). Career Counselors, educators, and businesses have adopted the MBTI to apply in their practice. Myers Briggs Type Indicator is often used to assist leaders in coordinating staff teams and assignments to maximize their effectiveness at work within their team or department (Rideout & Richardson, 1989). Corporations commonly use personality assessments to determine how to support and guide employees in training programs, team building, leadership coaching, communication, and executive training. Today, MBTI is used worldwide by nearly 90 Fortune 100 companies (Moyle & Hackston, 2018).

The basis of Jung's thesis originates from the belief that what seems to be arbitrary differences between two people are consistent differences based on one's preferences established in the early stages of life. The differences are measurable

patterns. Myers Briggs Type Indicator personality assessment measures four different areas on an opposing scale. According to Jung, each person possesses characteristics of the four dichotomous personality types (Guy-Evans, 2020). For each of the four categories, one trait is more dominant than the other.

The first of the opposing personality types is extroversion versus introversion. Extroverts tend to prefer to connect with the outside world, make observations with their senses, and act. Introverts tend to focus inwardly, often reflecting and thinking (Guy-Evans, 2020). The dichotomy of extroversion and introversion measures how people draw energy. Many draw their power from other people or outside sources while others refresh themselves by reflecting or thinking internally (Armentrout & Stout, 2015).

The second of the opposing categories is sensing versus intuition. Sensing is when one pays attention to facts, items that are real, use the five senses to make connections, and learns by experience. Intuition is when one learns by solving problems, pays attention to patterns, thinks about possibilities, and likes to consider abstract theories (The Myers Briggs Foundation, 2021).

The third opposing pair is thinking versus feeling. Thinkers look at facts and objective conditions when making decisions and use logic to solve problems. Thinkers move through the decision-making by using the logic of cause and effect. People who solve problems using feelings often wrestle with comparing cultural values and alternative solutions (Armentrout & Stout, 2015). Feelers make decisions based on their belief systems, feelings about other people or situations and consider society norms (Owens, 2020).

The last dichotomous pair is Judging versus Perceiving. A person who falls into the Judging category prefers an organized, structured environment and design plans to achieve their goals and is self-disciplined. On the other hand, perceivers are spontaneous, flexible, enjoy starting new projects, and tend to postpone decisions (Owens, 2020). Perceivers like to keep options open and consistently look for a better choice or alternative (Armentrout & Stout, 2015).

How one interacts with the world (external v internal), the way one makes a decision (thinking v feeling), how one collects information (sensing v. intuition), and how one organizes information (judging v. perceiving) are combined for the four personality types. Everyone completing an MBTI personality assessment will favor one of the two opposing categories in each area. Even if the preference of one choice in the dichotomy is not strong, it is still a preference, and the score will reflect this in the personality inventory. An individual's MBTI inclination in each area combines to form one of the four-letter personality types. For example, ENTJ is a category for people whose preferences lean towards extraversion, intuition, thinking, and judging (Blout, et al. 2018). There were 16 possible personality type categories. The MBTI has a high-reliability range of .86 to .95 (Moore, 2004). One can find the four-letter personality types, the name of the personality type, and a brief description of each personality type in Table 1.

Table 1

16 Personality Types

Four letter type	Type	Brief Description
INFP	Healer	They are creative idealists directed by their values.
INTJ	Mastermind	Efficient problem-solvers enjoy improving systems.
INFJ	Counselor	Imaginative nurturers helping others realize potential.
INTP	Architect	Theoretical innovators intrigued by logical analysis.
ENFP	Champion	People focused innovators, with an aim on possibilities.
ENTJ	Commander	Intentional leaders inspired to organize change.
ENTP	Visionary	Pioneers inspired to find solutions to complex problems.
ENFJ	Teacher	Charismatic planners seeing potential in other people.
ISFJ	Protector	Innovative caretakers driven to protect others.
ISFP	Composer	Flexible and intuitive caretakers who live in the now.
ISTJ	Inspector	Dependable organizers who create order within systems.
ISTP	Craftsperson	Artisans with skill in mechanics and solving problems.
ESFJ	Provider	Careful helpers, in tune with needs and feelings of others.
ESFP	Performer	Entertainers who charm and attract people around them.
ESTJ	Supervisor	Hardworking traditionalists who accomplish things.
ESTP	Dynamo	Adventure seekers who thrive in putting out fires.

Note: Truity.com

Uses of Personality Assessments in the Workplace

As mentioned earlier, MBTI is used worldwide by nearly 90 Fortune 100 companies (Moyle & Hackston, 2018). For example, Hallmark Corporation, a 3.5 billion dollar privately held company, uses MBTI to assist managers in understanding themselves and their actions and communication preferences better. Managers can then see how others may view their actions and communication styles. The executives at Hallmark incorporate the insights from the MBTI into a training program for managers at

Hallmark called Steppingstones. The program allows managers to view video of their interactions in a group to see how their personality affects group dynamics and support managers by providing them with ways to improve communications and interactions with colleagues.

A study was conducted in the field of agriculture in 2018 to determine the decision-making style of managers in agribusiness and the tool used to measure management style was MBTI. The researcher suggests making a good decision is contingent upon the adaptability of the manager to adopt decision-making styles based on the type of problem presented (Remenova & Jankelova, 2019). Personality impacts the way managers collect and analyze information to make a sound decision, and it impacts the speed at which they process information. The study included 150 agribusiness managers in Slovak. The business managers completed a questionnaire and completed the MBTI personality type assessment. MBTI was chosen, based on its reliability of .83 to .86. The researcher analyzed the results of the study. If agribusiness managers are aware of their decision-making style, they can maneuver in an unpredictable environment and make better decisions. Additionally, the personality type indicator assessment helps managers understand the choices of employees they support (Remenova & Jankelova, 2019).

A study published in 2018 focused on the links between well-being in the workplace and personality type. The study used the MBTI to find personality types. It used the Positive emotions, Engagement, Relationships, Meaning and Accomplishments or PERMA model to measure employee wellness or satisfaction in the workplace (Blout, et al., 2018). The study included over 4,000 participants globally who engaged in a

variety of occupations. Participants in the study agreed with the results of the MBTI personality type assessment. The study compared personality types to activities in the workplace and found differences between the types of activities enjoyed by different personality types. For example, an introvert cited reading as a preferred activity, and an extrovert tended to cite social gatherings as a preferred activity. If managers know the personality types of their employees, they can tailor professional development and relationship-building activities to the employee's preferences of learning and interacting with others (Blout, et al. 2018).

Co-teaching and Personality

Educators often describe the working relationship between co-teachers as a marriage (Sileo, 2011). Couples may use the Myers-Briggs personality assessment to inform them of their personality preferences and how those preferences can affect communication in a marriage. Marriage counselors recommend that couples take the 126-question inventory, which a computer can score find out their personality type (Williams, 1995). MBTI takes about 20 minutes to complete. After taking the assessment, couples can examine each of their personality inventories and their results together or with a couple's counselor to see how their differences and similarities may affect how they resolve conflict and communicate with one another (Williams, 1995). Researchers Barron-Tieger and Tieger investigated essential elements linked with happy couples. The characteristics most important were not surprising. They include good communication, sharing the same values and interests, and the ability to work out disagreements together peacefully. After studying hundreds of couples, Barron-Tieger and Tieger found the more type preferences the couples shared, the happier the couples

were with their communication with one another. Overall, couples tend to have more gratifying relationships when they have similar personality types. Researchers emphasize that the greatest predictors in a relationship are communication, common interests, and friendship. It is easier to achieve these with couples who are similar. However, it is possible to achieve a satisfying relationship without sharing identical personality types. This research correlates to co-teaching partnerships (Owens, 2020). If co-teachers share similar personality types, it will be easier to build a relationship, communicate regularly, and resolve conflict.

Summary

Inclusion in education happens when students with and without disabilities learn together in the same environment (PBS, 2003-2009). To have an understanding of inclusion, it is important to reflect on of the history of Special Education which is stems from the Civil Rights movement. Notable court and key legislation led to inclusive practices for students with disabilities in the United States.

One instructional model frequently used in classrooms to support students with disabilities in a general education classroom is co-teaching. It pairs together a general education and special education teacher together. The model offers specialized instruction to students with disabilities in a general education setting, and this provides access to the same academics as their general education peers (Samuels, 2015). Some challenges impact the co-teaching classroom such as: understanding the roles and responsibilities of each teacher in the co-taught classroom, lack of training for teachers co-teaching, inadequate plan time, assessment, and the relationship between co-teachers are all areas that can influence the effectiveness of a co-taught classroom (Dieker &

Murawski, 2003) Overall, couples tend to have more gratifying relationships when they have similar personality types.

Educators often describe the working relationship between co-teachers as a marriage (Sileo, 2011). Couples may use the Myers-Briggs personality assessment to inform them of their personality preferences and how those preferences can affect communication in a marriage. Researchers emphasize that the greatest predictors in a relationship are communication, common interests, and friendship. It is easier to achieve these with couples who are similar. However, it is possible to achieve a satisfying relationship without sharing identical personality types. This research correlates to co-teaching partnerships (Owens, 2020) . If co-teachers share similar personality types, it will be easier to build a relationship, communicate regularly, and resolve conflict.

Chapter Three: Methodology

The purpose of the study was to understand how personality may impact co-teaching relationships. Special education and general education administrators often observe co-taught classrooms, support professional development opportunities in inclusion, create schedules, and provide feedback to education and special education co-teaching pairs (Murawski, 2015). Successful co-teaching pairs spend time planning together and collaborating to solve problems, establish procedures, and determine each teacher's responsibility in class. Successful co-teaching teams that remain together year-to-year allow teachers to build their skills together and advance in practice. Administrators who provide general education teachers the opportunity to choose whether they wish to participate in co-teaching give teachers a choice and allow them to take ownership in the decision to participate in co-teaching. In Middle and High School, Special education teachers appreciate the opportunity to choose a field of study to co-teach. It encourages them to become well-versed in a specific subject, impacting their ability to differentiate instruction (Nierengarten, 2013). Administrators who take time to match teachers together based on personalities and learning preferences can increase the chances of success in an inclusionary classroom (Murawski, 2015).

Research Questions

Research Question 1: How does personality type affect co-teaching relationships?

Research Question 2: Do co-teaching pairs collaborate outside of school hours consistently if they have similar personality types as measured by Typefinder by Truity, an online personality assessment based on Myers Briggs?

The Null Hypotheses

Null Hypothesis 1: There is no relationship between co-teaching teams who have similar personalities and difficulty finding time to plan together weekly as measured by an online personality assessment based on Myers Briggs Personality Indicator, Typefinder, and pre- and post-survey data.

Null Hypothesis 2: There is no relationship between co-teaching teams with similar personalities and job satisfaction as measured by Typefinder created by Truity, an online personality assessment based on Myers Briggs Personality assessment, and pre- and post-survey data.

Null Hypothesis 3: There is no relationship between co-teaching teams with similar personality types and enjoyment of working as a team as measured by Typefinder by Truity, an online personality assessment based on Myers Briggs, and pre- and post-survey data.

Null Hypothesis 4**:** There is no relationship between co-teaching teams with similar personality types and teams working together for over three years as measured by Typefinder by Truity, an online personality assessment based on Myers Briggs and pre- and post-survey data.

Research Method

I used a mixed-methods approach to answer the research questions and null hypothesis questions in the study. "Studies that combine or mix qualitative and quantitative research techniques fall into a class of research that is appropriately called mixed methods research or mixed research" (Onwuegbuzie & Collins, 2007, p. 281). A mixed methods research design allowed me to understand better relationships and inconsistencies in the data (Shorten & Smith, 2017). The quantitative components of the

study included the surveys and the personality assessment. One can find a copy of the pre- and post-survey in the Appendix (Instruments 1 and 5). In addition, one can see the Typefinder Personality Assessment on Truity.com.

The participants completed a pre- and post-Likert scale survey and completed an online personality assessment. The Likert scale values for question 1 on the pre- and post-survey were: *general education teacher* (1) and *special education teac*her (2). The values for question two were: *less than a year* (1), *one to two years* (2), *three to five years* (3), *six to ten years* (4), and over ten years (5). The values associated with the statements for survey questions 3 through19 were: *strongly agree* (1), *agree* (2), *neutral* (3), *disagree* (4), and *strongly disagree* (5). One can find a summary of the Likert scale in Table 6. The pre- and post-survey data were analyzed using a *t*-test comparing the responses from the pre- and post-survey participants. The *t*-test produced a *p*-value between the two answers. I examined the *p*-value against the alpha value of .05 to determine whether the difference between the pre- and post-survey data was statistically significant (Glen, 2021). An advantage of using a pre- and post-survey is that the repeated results tend to be strong, and the sample size can be smaller (Kovaz, 2021). Teachers completed Typefinder (2020), an online personality assessment, and the website generated the results to find each teacher's personality type.

The qualitative parts of the study included focus group discussions, observations, and interviews. One can find a copy of the questions asked during focus group discussions and questions asked in the interviews in the Appendix (Instrument 2 and Instrument 4). In addition, one can refer to a copy of the observation form in the Appendix (Instrument 3). Each co-teaching pair participated in a focus group together,

conducted by me and recorded and transcribed in Zoom. I chose the online Zoom platform as it offers enhanced privacy features to assist in maintaining confidentiality (Statistical Solutions, 2021).

Additionally, the teachers were familiar with Zoom as they used it to conduct virtual classrooms, so they each had a comfort level while using the software and participating in the focus group discussions and later in the interviews. All seven of the co-teaching pairs took part in the focus group interviews. I observed six of the seven pairs during online class instruction and collected data using the same observation form. Finally, four teachers volunteered to an individual interview to dig deeper into their perceptions of co-teaching. All four responded to the same interview questions, and I conducted the interviews using a virtual platform, Zoom. After collecting each qualitative data set, I analyzed the data and looked for common themes in the answers. Most of the themes differed from instrument to instrument, as each qualitative research method focused on different areas. For example, the focus group interviews focused on the personality type assessment results, data from the observations focused on the dynamics of the co-teaching pair during instruction, and the discussions focused on the co-teaching relationship.

Participants

The teachers came from various demographic backgrounds and had varying levels of teaching experience (new teacher to tenured). The teachers worked in a dual system in a Midwest suburb. A dual system means special education teachers all work for one district specializing in special education. The school district partners with multiple school districts across the Midwest County, delivering special education services to all public

schools. I recruited the participants from the district where I am employed as a Special Education Administrator and from the school district where I work to support special education teachers and support staff. I received permission from both districts to recruit teachers to participate in the study. One of the school districts required me to send a flyer explaining the pros and cons of the Myers Briggs personality assessment. I included the brochure in an email to the teachers who volunteered to participate as I sent out their adult consent form to sign.

The participants in the study included general education teachers and special education teachers who participated in co-teaching classrooms and teach content-specific courses (English, Math, Science, Social Studies) in a middle school or high school. I recruited the potential participants from a list of teachers who participated in co-teaching throughout the district. My goal was to recruit at least eight pairs of co-teachers. The list consisted of approximately 150 general education and special education teachers. The email described the study, the risks involved, included a privacy statement, and outlined the time commitment of the volunteers to participate in the research and specific next steps if the teacher were interested in participating. Both co-teachers that work together were required to participate. Fourteen teachers or seven co-teaching pairs volunteered and participated in the study.

Instrumentation

Most of the instruments used in the study were designed by me. The instruments I designed included: survey: survey questions, focus group questions, interview questions, and classroom observation tools. I created each instrument with the research questions and hypotheses of the study in mind. By designing the survey, I could tie the

questions asked across all data collection formats directly to the research. I used a Likert Scale pre- and post-survey issued to the participants to collect quantitative data. The surveys were administered using a web-based software program called *Qualtrics*. I collected qualitative data by completing focus group interviews, one-on-one interviews, and collecting data on an observation form. Copies of the instruments can be found in the Appendix and are labeled instrument one through instrument five. I did not design the personality assessment, Typefinder. Typefinder is a product of Truity (Truity, 2020), a company providing online personality and career assessments. Typefinder mirrors a personality type assessment created by Myers Briggs. I completed all focus group discussions, interviews, and observations using an online video conferencing tool called "Zoom." Zoom is the video conferencing platform used by teachers during virtual instruction. It is a live stream video conferencing service delivered through the web. People use the software to meet with others online, and the service allows people to meet by audio, video, or both (Tillman, 2021). This virtual platform allowed me to virtually complete virtual classroom observations and interview teachers "face to face."

Typefinder, the online personality assessment by Truity, is based on Myers Briggs. The makers of Typefinder completed validity studies on the assessment's accuracy of predicting personality type. In one study**,** 857 people volunteered to complete the evaluation. Eighty-five percent of those who completed the online personality assessment rated the assessment as "extremely accurate or accurate" when describing their personality type. Ninety-six percent of the volunteers who completed the validity study reported Typefinder as "useful" (Typefinder, 2020). Typefinder comprises 130 statements, each one assessed on a five-point Likert. One hundred and four of the

statements require the participant to rank their agreeableness to the statement asked. For example, I like to attend parties with lots of people. The remaining 24 statements require the participant to choose between two views. For instance, I initiate conversations versus I wait for someone to approach me. The personality assessment takes about 15 minutes to complete. A method used to determine the reliability of Typefinder was Cronbach's alpha (Owens, 2012). Cronbach's alpha is a statistical measurement designed by Cronbach in 1951 to measure the reliability of Likert scale surveys. Cronbach's formula calculates how closely associated a set of assessment items is as a collection (Statistics How To, 2021). Researchers computed Cronbach's alpha value for the four overarching dichotomous categories of Typefinder. One can review the results of Cronbach's alpha value in Table 2.

Table 1

Cronbach's Alpha and TypeFinder's Reliability

Category	Cronbach's alpha
Extrovert or Introvert	.937
Sensing or Intuitive	.886
Thinking or Feeling	.902
Judging or Perceiving	.923

(Owens, 2012, p. 6)

A Cronbach alpha score of .9 and over indicates excellent consistency, a rating between .8 and .9 is good, and a rating between .7 and .8 is acceptable. Ratings below .7 are questionable (Statistics How To, 2021). According to Cronbach's alpha, the reliability of the four categories is high. However, researchers calculated Cronbach's alpha test on the subcategories, and the scores were lower than the four categories. The

discrepancy may be due to a lack of questions in each class (Owens, 2012). As a result, there may not be enough questions in each subset to score high on the reliability index (Statistics How To, 2021).

Methodology

I completed the study during the COVID-19 pandemic. The school district was closed to in-person learning for the 2020 fall semester and classes continued online using a video conferencing platform, Zoom. Fourteen teachers volunteered and met qualifications to participate in September 2020. They all reviewed and signed an adult consent form which outlined confidentiality, potential risks, steps involved in the study, the purpose of the research, the length of the study (Fall semester 2020), and who to contact to find out more about the research. Email was the primary way I recruited participants.

The section following describes the framework of the study and the sequence of data collection. About a week after collecting the adult consent form from teachers, I distributed a Likert Scale survey related to their teaching practice and job satisfaction. Teachers completed the survey through *Qualtrics* software. Thirteen of the fourteen participants completed the pre-survey. After completing the pre-survey, I emailed teachers a link to an online personality assessment called Typefinder by Truity. Typefinder is a personality evaluation based on the Myers-Briggs personality type indicator. The teachers received guided instructions on how to access the assessment. As each teacher completed the personality inventory, they received results of their personality assessment results from the Truity website automatically after taking the assessment. All 14 participants reported completing the personality type assessment.

The teachers shared the personality inventory results with their co-teacher and me during a focus group interview after each co-teaching pair completed Typefinder. The focus group interview was recorded and transcribed using Zoom software. I asked the same questions in each focus group discussion. The focus group interview questions centered on the teachers' personality type results. Specifically, questions centered on their perceptions of their results on the personality assessment, if each co-teaching pair shared similar personality characteristics, if they noticed any differences, and if they found the discussion around personality meaningful to their work together. All seven co-teaching teams participated in the focus group interviews. One can see the focus group interview questions in the Appendix (Instrument 2). Once the focus interviews were complete, I checked the transcription for accuracy, recorded the responses on a spreadsheet, and coded them. An error occurred when downloading the responses from one focus group interview, and only the audio recording saved. Therefore, I transcribed the audio recording and captured all focus group interviews. I saved the video recordings to a compressed file on the researcher's personal computer for safe keeping and later disposal. I analyzed the data to determine which pairs of teachers have similar personalities by reviewing the personality assessment results provided by each teacher and looking for a similar pattern in the four-letter scale characteristic of MBTI. For the purpose of the study, the definition of "similar personality types" is the teachers sharing three or more of the four-letter personality traits, based on the Typefinder Assessment.

After completing the focus group interviews and analyzing the data from the interviews, I requested to observe the teachers co-teaching together. The teachers sent me a link to their virtual classroom. I completed the observations virtually using Zoom

software and observed six of the seven co-teaching pairs. During the observation, I used a form created by me designed to answer the research questions one and two regarding how personality types may affect instructional practices and planning. The observations targeted co-instruction in the classroom. I entered each virtual classroom and conducted a classroom observation looking for evidence the teachers planned together, collaborated in the classroom, taught using evidence-based best practices, provided students with multiple opportunities to respond, communicated with each other, supported students, shared in the presentation of the lesson, and had established routines and expectations for the students in the class. For a copy of the form, reference the Appendix (Instrument 3). I completed the same observation form for each of the teacher observations. After completing the classroom observations, I looked for common themes across all observations and categorized the themes tying the themes back to the research questions and hypotheses.

Next, I sent out an email requesting volunteers to interview one-on-one to ask a few in-depth questions around individual experiences co-teaching. Four general education teachers volunteered. I set up the personal interviews with the teachers and asked them a series of questions relating to the research questions and hypotheses. I designed the interview questions. One can find a copy of the questions in the Appendix (Instrument 4). The interviews occurred virtually, and I scribed the answers to the questions as I asked them. After collecting the data from the four volunteers, I analyzed the responses for common themes.

The four individual interviews with teachers transpired online using Zoom software. I did not record the interviews. Instead, I asked each participant a set of

predetermined interview questions (See Appendix, Instrument 4). The design of the interview questions answered research questions one and two focusing on the teachers' perceptions of their co-teaching work relationship—some of the questions overlapped with the focus group discussion. In addition, I asked teachers to share the results of the personality assessment. The same questions were identical for all interviews. The teachers discussed their personality type assessment results. They discussed if they agreed with the evaluation, enjoyed co-teaching, if their classroom management styles aligned with their co-teacher, if their instructional strategies aligned, and if they spent time planning together during the week for the class. I recorded each answer to the questions on a Google document shared with the participant. I asked the participant to review the Google document to ensure that what I transcribed on the paper accurately captured their answers.

There are two different methods used to analyze data from qualitative research. Inductive and deductive coding. Inductive coding captures the themes as they emerge in the data sets, while deductive coding predefines the coding themes before reviewing the data. I used inductive coding to analyze the qualitative data found in the focus group discussions, individual interviews, and observations. Inductive coding is more accurate than deductive coding and will allow for a complete and impartial look at the data (Medeylan, 2020).

There are nine steps to complete inductive coding. The first step is to divide the data into smaller sets. Second, review one interview or the first set of sample data. Third, look for common themes in the answers of the interview. Step four, code common themes by color and name each theme. Fifth, move to the second interview data set, read

the interview, and apply the codes from the first sample. Sixth, be aware of the codes that do not align with the second set of interview data. Seventh, establish new codes based on the second set of interview data. Eighth, go back and re-code the interview data sets with the new codes. Step nine, replicate step five until all interview data are coded (Medeylan, 2020). After the coding was complete, I created a coding frame to organize the themes found in the research. I coded the focus group data, individual interviews, and observational data using the same coded themes. Each instrument used in the study had a unique focus. The focus group discussions targeted the results of the Typefinder personality assessment. The observations focused on the co-teaching pairs' instructional practices. The interviews intertwined the perceptions of the personality assessment, instructional techniques, and the teacher's perceptions of co-teaching with his or her co-teaching partner. Themes were emerging from more than one instrument.

The last step of the research study included the participants completing a post-survey. The questions in the post-survey were primarily linked directly to the pre-survey. The post-survey is based on a Likert scale and issued through Qualtrics software. Twelve of the fourteen participants completed the post-survey. Upon completion of the study, I sent all participants a thank you email and followed up with a 15-dollar gift ecard to Panera Bread Company

I analyzed the quantitative data to determine the correlations of the pre- and post-survey. For each question in the survey, I assigned a numerical value to each answer choice in the Likert Scale survey and found the group's mean for each question. Next, I analyzed each of the questions of the pre- and post-surveys by applying a statistical assessment called the "*t*-test" to the questions asked in the pre- and post-surveys. The

survey questions directly aligned to the null hypothesis are in Table 3. Copies of the pre- and post-surveys can be found in the Appendix and are entitled (Instrument 1 and Instrument 5). Chapter Four outlines the results associated with Null Hypotheses 1 through 4.

The focus group, observational data, and interview questions align with the research questions in Table 4. After analyzing the quantitative data, I looked for themes and patterns within each instrument and throughout the platforms of the qualitative data. Chapter Four outlines the results associated with Research Question 1 and Research Question 2.

Table 2

Tying the Pre- and Post-Survey to each Null Hypothesis

Pre-Survey Questions	Post-Survey Questions	Null Hypothesis
18	18	1
12	12	2
7,13	7,13	3

Note: This table identifies the pre-and post-survey questions related to each Null Hypothesis.

Table 3

Tying the Focus Group, Interviews, and Observations to Research Questions

Instrument	Questions or observation data	Research Question
Focus Group	1-5	1
Focus Group	1	2
Interview	5-14	1
Interview	11	2
Observation Data	2-17	1
Observation Data	4,6,7,10,13	2

Summary

The purpose of the study was to understand how personality may impact co-teaching relationships. I used a mixed-methods approach to answer the research questions and null hypothesis questions in the study. The quantitative components of the study included pre and post Likert scale surveys and a personality assessment. The pre- and post-survey data were analyzed using a *t*-test comparing the responses from the pre- and post-survey participants. The online personality assessment completed by teachers is called Typefinder and is based on Myers-Briggs. Typefinder is found on Truity.com. The qualitative parts of the study included focus group discussions, observations, and interviews. After collecting each qualitative data set, I analyzed the data and looked for common themes in the answers. I recruited teacher participants from the district where I am employed as a Special Education Administrator and from the school district where I work to support special education teachers and support staff. I completed the study during the COVID-19 pandemic. The school district was closed to in-person learning for

the 2020 fall semester and classes continued online using a video conferencing platform, Zoom. Fourteen teachers participated in the study. First, teachers completed a pre-survey. Second, teachers completed the online personality assessment. Third, participants participated in a focus group interview. Fourth, I observed the teaching pairs in the virtual classrooms working together. Fifth, several of the educators participated in one-on-one interviews with me. Finally, teachers completed a post-survey to end the study.

Chapter Four: Results

The purpose of the study was to understand how personality may impact co-teaching relationships. Part of the responsibilities of the Special Education Administrator and School Principal include supporting co-teaching teams, planning training sessions for teachers who co-teach together, observing co-taught teaching pairs, and scheduling classes to help students with disabilities in general education by pairing teachers together in the core academic subject areas. Those are some of the ways administrators support teaching teams (Murawski, 2015). Over the years, it has been observed some teachers work together well, plan together, teach using research-based instructional strategies, seem to enjoy instructing together, and data from their classroom suggests students grow and learn. Some teachers are effective in a classroom environment alone. However, when paired with another teacher, the team is not as effective. The teachers do not consistently plan together or seem to work as a team when in the classroom. Part of this may be due to a lack of time to prepare and design instructional lessons and classroom management techniques. Another reason may lie in the personality types of the teachers (Stark, 2015). Part of the reason the team is not as effective may be that their personalities are not compatible. I found a gap in the research and could not find a study linking personality types to co-teaching teams.

Research Methods

I used a mixed-methods approach to collect data for this study. The type of data collected were both qualitative and quantitative. Data collection to run the analysis came from a variety of sources. First, the Typefinder Assessment was used to determine the personality types of participants in the study. Second, I collected pre- and post-survey

data to determine if patterns existed in several areas. I looked for a correlation between personality and job satisfaction, teacher planning, working effectively as a team, if the teaching teams had worked together for over three years, and to help determine how personality type may affect co-teaching relationships. Finally, I used focus group interviews, one-on-one interviews, and observational data to dig deeper into the personality assessment results and survey questions to explain further how teacher personality impacts co-teaching teams.

Typefinder Personality Assessment

The 14 teachers who participated in the study completed Typefinder, a free online personality assessment based on Myers Briggs. Nine of fourteen teachers who completed the evaluation reported results of ENFJ or the "teacher." Typefinder describes the teacher as an idealist coordinator, determined to execute what is best for people. They act as facilitators for growing people because they see potential in other people, and ENFJ's or "teachers" possess charisma and are effective at influencing others to embrace their ideas (Truity, 2020). Two of the fourteen reported in focus interviews their type as ENFP, or the "champion." The assessment describes the champions as people-centered innovators emphasizing opportunities, and they have an infectious enthusiasm for new concepts, people, and interests. They are enthusiastic, warm, and zealous. ENFPs or champions enjoy helping others to examine their creativity (Truity, 2020). One teacher reported results of INFJ or the "counselor." According to Truity, the counselor is an imaginative nurturer with a high sense of integrity and a desire to assist others to realize their potential and find solutions to their personal challenges. Another teacher reported assessment results of an "ESFJ" or the "provider." Providers are

thoughtful helpers. They are in tune with the needs of others. They focus on their responsibilities, are aware of the emotional environment around them and the feelings and perceptions of others (Truity, 2020). Finally, one teacher reported his or her assessment results as an ESTJ or the "supervisor." Typefinder outlines characteristics of the supervisor as a dedicated traditionalist who enjoys taking responsibility for organizing and overseeing projects and people. They find satisfaction in completing tasks in a methodical and organized fashion (Truity, 2020). One can find an overview of the results in Table 5.

Table 4

Co-teaching Personality Types as measured by Typefinder

Co-teaching Teams	A	B	C	D	E	F	H
General Education Teacher	ENFJ	ENFP	ENFP	INFJ	ENFJ	ENFJ	ENFJ
Special Education Teacher	ESFJ	ENFJ	ENFJ	ENFJ	ENFJ	ENFJ	ESTJ

Note: This table displays the results of the participants' personality assessment by co-teaching pairs.

Two of the seven pairs shared the exact personality type. Four of the seven pairs matched at least three of four of the indicators. One of the seven pairs shared two out of the four indicators. The two pairs that shared the same personality types were co-teaching teams E and F. The results for both teachers on teams E and F were ENFJ or "the teacher." The first letter of the four-letter personality type can either be an "E," standing for extrovert, or an "I," standing for an introvert. Thirteen of the fourteen teachers fell into the extrovert category, and one fell into the introvert category.

Pre- and Post-Survey

The pre- and post-surveys are on a Likert Scale. There are 19 questions on the pre- and post-survey. The Likert scale values for question 1 on the pre- and post-survey

were: *general education teacher* (1) and *special education teac*her (2). The values for question two are *less than a year* (1), *one to two years* (2), *three to five years* (3), *six to ten years* (4), and over ten years (5). The values associated with the statements for survey questions 3-19 were: *strongly agree* (1), *agree* (2), *neutral* (3), *disagree* (4), and *strongly disagree* (5). A summary of the Likert scale can be found in Table 6.

The mean of the questions ranges from 1.08 to a 2.08, indicating the participants agreed or strongly agreed with the statements in pre- and post-surveys. To compare the pre- and post-survey data, I used a paired *t*-test. In the study sequence, the first data collection occurred with the pre-survey, and at the end of the research study, the participants completed a post-survey. The *t*-test measures if there is a significant difference between the two surveys. A paired *t*-test determined if the research study itself impacted the teacher's co-teaching relationships (Shier, 2004). Thirteen out of fourteen teachers completed the pre-survey, and 12 of 14 completed the post-survey. One can locate a summary of the questions relating to the Null Hypothesis in Table 3. To compare the pre- and post-survey results accurately, I removed the answers from the 13th teacher from the pre-survey. Consequently, six teaching team's responses qualified for analysis of the study.

Null Hypothesis 1

Table 5

Pre- and Post-Survey Likert Scale Value

Answer	Scale 1-5	Years teaching together	Scale 1-5	Have you attended Co-teaching training?	Scale 1-5
Strongly Agree	1	Less than 1 year	1	yes, several with co-teacher	1
Agree	2	1 to 2 years	2	yes, one with co-teacher	2
Neutral	3	3 to 5 years	3	yes, attended without co-teacher	2
Disagree	4	6 to 10 years	4	yes, with previous co-teacher	4
Strongly Disagree	5	over 10 years	5	I have not received training	5

Null Hypothesis 1**:** There is no relationship between co-teaching teams who have similar personalities and difficulty finding time to plan together weekly as measured by an online personality assessment based on Myers Briggs Personality Indicator, Typefinder, and pre- and post-survey data.

One can locate the results of the Typefinder personality assessment in Table 5. In summary, two of the seven co-teaching pairs shared the same personality type, ENFJ, described as a teacher. In addition, four of the seven co-teaching pairs matched three out of four categories in the personality assessment. Finally, one pair matched two of four categories. Thus, six of the seven pairs have "similar" personality types matching three of four categories.

The survey questions related to Null Hypothesis 1 are Question 6 and Question18 on the pre- and post-survey. Question 6 asks respondents, "Do you believe your co-teacher compatible personality types?" One can find the results of the *t*-test in Table 7; the *p*-value is .04, which is less than the alpha .05. A *p*-value less than .05 is considered statistically significant. This value of .04 supports the findings of the Typefinder Personality Assessment. Participants in the study believe they have compatible personalities with their co-teacher. Question 18 states: "My co-teacher and I find it difficult to find times to plan together during the week." See Table 7. The *t*-test result between the pre- and post-survey for Question 18 found a *p*-value of .01. The *p*-value .01 is less than the alpha value of .05. The null hypothesis was rejected. There is a relationship between co-teaching teams having similar personalities and having difficulty finding time to plan together. The survey question did not specify how much time the teachers plan together.

Table 7

Survey Data Related to Null Hypothesis 1

Question	Pre-Survey	p value	Post Survey
6. I believe my co-teacher and I have compatible personality types.	1.41 (M)	.04 (p)	1.17 (M)
18. My co-teacher and I find it difficult To find times to plan together during the week.	2.50 (M)	.01 (p)	1.50 (M)

Null Hypothesis 2

Null Hypothesis 2: There is no relationship between co-teaching teams with similar personalities and job satisfaction as measured by Typefinder created by Truity, an online personality assessment based on Myers Briggs Personality assessment, and pre- and post-survey data.

The results of the Typefinder personality assessment can be found in Table 5. Six of the seven pairs of co-teachers had similar personalities as each pair in at least three of the four personality categories. The pre- and post-survey questions related to Null Hypothesis 2 are Questions 6 and 12 and as shown in Table 8. Question 6 asks respondents, "I believe my co-teacher and I have compatible personality types." One can find the results of the *t*-test in Table 7; the *p*-value is .04, which is less than the alpha .05. A *p*-value of less than .05 is considered statistically significant. The *p*-value of .04 supports the findings of the Typefinder Personality Assessment. Participants in the study believe they have compatible personalities with their co-teacher. The Likert scale survey question stated: "My job satisfaction increased because I have a good relationship with my co-teaching partner." The *t*-test resulted in a *p*-value of .03, which is less than the alpha value of .05. If the *p*-value is less than the alpha, it is a statistically significant

value, and therefore the Null Hypothesis is rejected. There is a relationship between co-teaching teams with similar personalities and job satisfaction.

Table 8

Survey Questions Related to Null Hypothesis 2

Survey Question	Pre-Survey	p-value	Post Survey
6. I believe my co-teacher and I have compatible personality types.	1.41 (M)	.04 (p)	1.17 (M)
12. My job satisfaction is increased because I have a good relationship with my co -teaching partner.	1.50 (M)	.03 (p)	1.00 (M)

Null Hypothesis 3

Null Hypothesis 3: There is no relationship between co-teaching teams with similar personality types and enjoyment of working as a team as measured by Typefinder by Truity, an online personality assessment based on Myers Briggs, and pre- and post-survey data. The results of the personality assessment can be found in Table 5. Six of the seven pairs of co-teaching pairs shared at least three of four dichotomous personality categories. Table 9 summarizes the results of the pre- and post-survey questions related to Null Hypothesis 3. The question asked participants if they enjoyed working as a team in the classroom. The resulting *p*-value of the *t*-test is .05. A *p*-value of .05 is not less than the alpha value of .05. Therefore, the Null Hypothesis is not rejected. There is no relationship between co-teaching teams with similar personality types and enjoyment of working as a team as measured by Typefinder and pre- and post- survey data.

Table 6

Survey Questions related to Null Hypothesis 3

Question	Pre-Survey	p-value	Post Survey
6. I believe my co-teacher and I have compatible personality types.	1.41 (M)	.04 (p)	1.17 (M)
13. I enjoy working as a team in the classroom.	1.15 (M)	.05 (p)	1.08 (M)

Null Hypothesis 4

Null Hypothesis 4**:** There is no relationship between co-teaching teams with similar personality types and teams working together for over three years as measured by Typefinder by Truity, an online personality assessment based on Myers Briggs and pre- and post-survey data.

The results of the personality assessment can be found in Table 5. In summary, six of the seven co-teaching pairs shared at least three of four dichotomous personality categories. The questions relating to Null Hypothesis 4 are Question 6 and Question 2 in the pre- and post-survey. Question 6 asks respondents, "Do you believe your co-teacher compatible personality types?" The *t*-test results can be found in Table 10; the *p*-value is .04, which is less than the alpha .05. A *p*-value of less than .05 is considered statistically significant. The *p*-value of .04 supports the findings of the Typefinder Personality Assessment. Therefore, participants in the study believe they have compatible personalities with their co-teacher. Question 2 asked, "How long have you worked with your co-teaching partner?

The *p*-value for question 2 is .29, a value that is greater than the alpha .05. Therefore, null hypothesis 4 is not rejected. This study shows no relationship between teacher teams with similar personalities and working together for over three years.

Table 7

Survey Results related to Null Hypothesis 4

Question	Pre-Survey	p-value	Post Survey
6. I believe my co-teacher and I have Compatible personality types.	1.41 (M)	.04 (p)	1.17 (M)
2. How long have you worked With your co-teaching partner?	2.50 (M)	.29 (p)	2.08 (M)

Research Question 1

Research Question 1: How: How does personality type affect co-teaching relationships?

Teachers completed a personality assessment called Typefinder, based on Myers Briggs Personality Assessment. One can find a summary of each teacher's personality type in Table 5. The personality assessment results indicate that six of the seven pairs share at least three out of four personality type indicators. For this study, a similar personality is teachers who share at least three of the four personality type characteristics. Two of the seven pairs have exact personality type matches.

Focus Group Discussion and Themes

The questions asked in the focus group were all linked to research question one. Each of the co-teaching pairs interviewed together virtually with me using a web-based software called Zoom. All seven of the co-teaching teams participated in the focus group interviews. Six of seven interviews were recorded and transcribed by Zoom. I downloaded both the video and the transcriptions to review and analyze. Unfortunately, I hit a snag while downloading one of the seven Zoom interviews, and the transcription and video did not save. So, I transcribed the interview using the audio file and reviewed the recording multiple times to ensure the accuracy of the transcription.

The questions asked in the focus interview were: What: What was your prevailing personality type? Were you surprised by the results of the personality assessment? Do you think it accurately describes your personality? Do you see any similarities in your personality type? Do you see any differences in your personality type? Do you think this exercise will strengthen your co-teaching relationship?

Questions one through three during the focus group interviews targeted each teacher and focused on the results and their perception of the Typefinder personality Assessment. The first focus group question required the co-teachers to reveal their personality types as assessed by Typefinder. Two of the seven pairs shared the exact personality type. Four of the seven pairs matched at least three of four of the indicators. One of the seven pairs shared two out of the four indicators. Six of the seven groups shared at least three of the four personality indicators. See Table 5. Six of the seven co-teaching teams met the criteria outlined in this study as possessing similar personality types to one another. The overarching theme of questions one through three is that participants overall agreed with the assessment, and the co-teaching teams shared similar personality characteristics.

The second focus interview question asked, were you surprised by the results of the personality assessment? Again, a common theme emerged in the answers. Eleven out of the fourteen volunteers stated they were not surprised by the results. One of the teachers who said she was not surprised by the results expressly stated, "No, because I have been the exact same thing for 35 years". Two of the fourteen teachers said they were "a little surprised" about the results of Typefinder. One participant's personality type was an INFJ or a "Counselor," She stated she usually takes the assessment and

receives ENFJ or "the teacher." The third question asked teachers if Typefinder accurately described their personalities. All 14 teachers agreed that the personality assessment described each of them accurately. One of the teachers stated, "I think it was dead on for each area for me." Another teacher replied, "Yes, it says I am energetic, and I am energetic and always trying to make the kids laugh."

The third question asked if teachers could see similarities in each other's personality types. The primary theme that emerged from this is that most teachers could see personality similarities in his or her co-teacher. Although one teacher responded to this question stating she thought their personalities complemented each other, she did not note the similarities. The rest of the respondents in each focus group noted similarities. A couple of the co-teaching teams responded by discussing commonalities in teaching practices and sharing common goals for student achievement in the classroom. Teachers cited patience, trust, and empathy as traits three co-teaching pairs shared. Four of the seven teams confirmed sharing personality traits or demographics when answering Question 3. To illustrate this, here is the response to question three by focus group E.

> Like, she is a more extroverted version of myself. Yeah, a lot of times, we know what each other are thinking. If I'm teaching at the moment, she knows she can just jump right in and throw her thoughts because, being an introvert, I'm very open to people talking over. Some people think I am easygoing. It makes for a lot of valuable interactions for the students. (Study Participant E/G November 2020)

The co-teacher responded by stating:

> I'll answer that because I wanted to mention that we are both Pisces. We are born in March on the exact same day. So, we talk about it all the time. We are so much alike. In class, I can think something, and he does not realize I want to say something, and he will read my eyes and be like; "alright, so Ms. ES wants to say something," and he follows me every time. (Study participant E/S, November 2020)

Two teams cited differences in the way each person handles conflict. Team A mentioned that one teacher is more verbal while the other co-teacher tends to remain calm and collected. Team H cited one team member's ability to let things "roll off his back." In both cases, the teacher displaying a calmer demeanor was the special education teacher. The other teams cited that one team member tended to be a little more outgoing or energetic than the other. Question five asked the teams if they thought this exercise would strengthen their co-teaching relationship. Four of the seven pairs said they did not believe it would as they have worked together for more than a year and already had the opportunity to get to know each other. Three of the seven pairs said it would strengthen their teaching relationship with each other.

Interview Data

Four of the fourteen teachers participated in a one-on-one interview conducted by me to learn more about their co-teaching experience and how their personalities may impact that experience. The four teachers who participated were all general education teachers. The interview questions related to Research Question 1 were interview questions five through fourteen. The common themes emerging from the four teachers included the following: All four of the teachers interviewed enjoy co-teaching and

working with their current co-teaching partner, they agreed with the results of the personality assessment, they all believe they have similar personalities to their co-teacher, all four reports they plan in some capacity each week with their co-teacher, each reported their working relationship with their co-teacher improves their job satisfaction, each report similar approaches to classroom management. However, when asked about student progress in the classroom, the answers varied.

Observational data

I collected observational data in the virtual classroom, and one can find the aggregate results of the observations in Table 11. A copy of the form used to collect data is in the Appendix entitled Instrument 3. I completed all of the observations during the pandemic's school closure, and educators taught classes virtually through a software platform called ZOOM. Observational data numbered two through seventeen related to Research Question One. All anecdotal comments related to Research Question One. In six of six classrooms, I observed: teachers talking to one another, interacting with each other, there was evidence, co-teachers used research-based strategies in the classroom, each delivered instruction, both teachers supported students, classroom rules and routines were taught and practiced, there was evidence of instructional planning, and both teachers actively supervised students. In five of six of the observations, student engagement appeared over 80%, students' teachers provided multiple opportunities to respond, and evidence teachers planned together was present. In three of six of the observations, co-teachers provided instructional lessons in a variety of ways. In one of six opportunities, teachers delivered differentiated instruction to reach a variety of leaners and provided positive specific praise to students.

Table 8

Aggregate Observation Data

Instructional Classroom Observations	**Number of indictors present**
Observations by Zoom between 11/17/2020 and 12/3/2020	**Observed via Zoom**
2. Teachers talk to one another.	6/6
3. Teachers interact and work together.	6/6
4. Evidence teachers have a plan together.	5/6
5. Research-Based Instruction strategies present	6/6
6. Lesson is differentiated.	1/6
7. Both teachers deliver instruction.	6/6
8. Both teachers support all students.	6/6
9. Lessons are presented in a variety of ways.	3/6
10. Students have multiple opportunities to respond	5/6
11. Evidence presents classroom routines are taught and practiced.	6/6
12. Evidence presents classroom expectations are taught and practiced.	6/6
13. There is evidence of instructional planning.	6/6
14. Both teachers actively supervise students.	6/6
15. Positive Specific praise is 4 to 1	1/6
16. Feedback is given to students from both teachers	6/6
17. Student Engagement over 80%	5/6
Antidotal Classroom Climate Comments	
Team A: Both actively supervised, reminded students of assignments, asked students questions, and interacted together. Co-teaching classes scored highest in a benchmark in the district. **Team B**: Teachers reinforced each other and followed each other's lead. **Team C:** Teachers are favorable to one another and reinforce strategies. Students were investigating what may have happened to a colony of settlers. The group had clues to put together to determine what happened. **Team E:** S/E dressed as Santa and was the comic relief while S/G answered questions the students had asked regarding the end of the semester and assignments, then transitioned into cell characteristics. Both actively supervised students. **Team F:** Positive classroom environment, teachers interact and work well together, and both contributed to the lesson. **Team H:** Teachers interacted and laughed, and reinforced each other's comments. They seemed to follow each other's lead.	

Collective Emerging Themes

One can find key data points that led to themes found in the research through focus group discussions, observations, and interviews Table 12. Several themes were reoccurring in the study. First, the teachers were not surprised by the personality type assessment results. Many of the participants had taken a similar personality type assessment, and the results were the same as the previous assessment. Second, all teachers stated they agreed with the results of the personality type assessment and understood why they aligned with their specific personality type when they reviewed the results of the evaluation. Third, overall, teachers participating in the study believe they shared common personality traits with their co-teachers. And finally, the co-teaching pairs plan instruction together.

A theme unique to the focus group interviews is teachers believe using a personality type assessment is an excellent way to get to know one another. The overarching theme pulled from observational data is co-teachers use research-based best practices when working together in the classroom. The observations provided further evidence teachers offered multiple opportunities for students to respond in class, rules and routines practiced and followed, and both teachers actively supervised students. These instructional strategies result in student engagement in the classroom of over 80%. Themes specific to the interviews included increased job satisfaction based on their working relationship with their co-teacher, and student achievement has increased based on the teacher's experience in the co-teaching classroom. In interviews, the teachers reported they enjoyed working together and said student achievement was growing, as

evidenced by increased turned-in assignments or an increase in scores in district-wide assessments.

Table 9

Key Points in Qualitative Data

Focus Group Personality
Nine of the fourteen teachers reported a personality type of ENFJ or "Teacher."
Overall, teachers said they were not surprised by the results of the Typefinder Personality Assessment.
All of the teachers believe Typefinder Assessment accurately assessed their personalities.
Nine of the fourteen teachers believe their personalities are similar to their co-teaching partner.
Teachers felt taking the personality assessment is a great way to get to know each other better and is beneficial for teachers new to working together.
Observations: Teaching Practice
Co-teaching pairs observed communicated with each other during the class.
Both teachers led instruction and supported students.
Instructional planning was evident.
Rules and routines were practiced and taught.
Students provided multiple opportunities to respond.
Student engagement over 80%.
Interview: Co-teaching experience
The teachers interviewed were general education middle school teachers.
All worked with their current co-teacher for two years and less.
They enjoy working in the classroom as a team with their co-teachers.
Teachers report they share common expectations, values, and student outcomes.
No one interviewed was surprised by the results of the personality assessment.
Teachers reported the personality assessment accurately described them.
Teachers believe they share similar personality characteristics with their co-teacher.
All teachers report spending time planning with their co-teacher.
The co-teaching experience with the current co-teacher increases job satisfaction.
Teachers report student performance has increased in different ways.
Instrument Shared Themes
Overall, teachers were not surprised by the results of the personality assessment.
All of the teachers believe Typefinder Assessment accurately assessed their personalities.
Overall, teachers believe they share common personality traits with their co-teacher.
Co-teachers plan instruction together.

Research Question Two

Research Question 2: Do co-teaching pairs collaborate outside of school hours consistently if they have similar personality types as measured by Typefinder by Truity, an online personality assessment based on Myers Briggs?

One can find a summary of each teacher's personality type in Table 5. The personality assessment results indicate that six of the seven pairs share at least three out of four personality type indicators. In addition, two of the seven pairs were exact personality type matches.

Focus Group Data

The focus group interview question related to Research Question 2 was the first question asked in the focus group interview. The question asked, "What was your prevailing personality type.?" A summary of the personality assessment results, Typefinder can be found in Table 5. I asked no questions related to collaboration outside of school hours in the focus group interview.

Observational Data

Observational Data linked to collaboration or planning on the form are 4, 6, 7, and 13. The aggregate results of the data are in Table 9. For example, evidence teachers have planned together was present in six of six classrooms. The lesson differentiation is present in one of six classrooms. Both teachers deliver instruction was current in six out of six classrooms. Thus, I observed evidence of instructional planning in six out of six observations. Co-teachers instructed all classes virtually via Zoom.

Interview Data

The question related to Research question two asked in the interview was Question 11. This multiple response question asked teachers if they planned with their co-teacher? How often do they meet? If so, how do they meet? (Do teachers meet virtually or in person?) The common theme for all four teachers who participated in the interview was that they do plan with their co-teacher. Two of the interviewees stated they spent time collaborating with their co-teacher on Fridays, another stated they plan together and attend PLC meetings which aids in the planning process. One interview responded to the questions by discussing the way they planned together. This particular team plans by discussing student needs and how to scaffold and adjust curriculum to meet the needs of diverse learners. Two teachers stated they texted their co-teacher constantly, another said she emailed her co-teacher. Three out of the four participants indicated they communicated outside of their plan time together. The interview question did not ask if teachers collaborated outside of school hours.

Emerging Themes

The different themes prevailing during the focus group discussions, observations, and interviews are summarized in Table 10. Several themes reoccurred in the study. The reoccurring themes included: teachers were not surprised by the results of the personality type assessment, the teachers agreed with the results of the evaluation, teachers believe they shared common personality traits with their co-teachers, and the co-teaching pairs plan instruction together. However, none of the qualitative instruments directly addressed if teachers planned outside of school hours. Thus, the results of the study are inconclusive in respect to Research Question 2. While the study found teachers have similar

personality types, it did not determine whether or not teachers collaborate outside of school hours.

Summary

The purpose of the study was to understand how personality may impact co-teaching relationships. I used a mixed-methods approach to collect data for this study. The type of data collected were both qualitative and quantitative. The quantitative data consisted of the personality assessment and pre and post surveys. The Typefinder Assessment was used to determine the personality types of participants in the study. One can find an overview of the results of the assessment in Table 5. The pre- and post-surveys are on a Likert Scale. A summary of the Likert scale can be found in Table 6. One can locate a summary of the questions relating to the Null Hypothesis in Table 3. , I used a paired *t*-test to compare the pre- and post-survey data.

I rejected Null Hypothesis 1. There is a relationship between co-teaching teams who have similar personalities and difficulty finding time to plan together weekly as measured by an online personality assessment based on Myers Briggs Personality Indicator, Typefinder, and pre- and post-survey data. Null Hypothesis 2 is rejected. There is a relationship between co-teaching teams with similar personalities and job satisfaction. I failed to reject Null Hypothesis 3. There is no relationship between co-teaching teams with similar personality types and enjoyment of working as a team as measured by Typefinder by Truity, an online personality assessment based on Myers Briggs, and pre- and post-survey data. Null Hypothesis 4 is accepted. There is no relationship between co-teaching teams with similar personality types and teams working

together for over three years as measured by Typefinder by Truity, an online personality assessment based on Myers Briggs and pre- and post-survey data.

The qualitative data I collected includes focus group interviews, one-on-one interviews, and observational data to dig deeper into the personality assessment results and survey questions to explain further how teacher personality impacts co-teaching teams. The different themes prevailing during the focus group discussions, observations, and interviews are summarized in Table 10. Reoccurring themes emerged to answer Research Question 1. The reoccurring themes included: teachers were not surprised by the results of the personality type assessment, the teachers agreed with the results of the evaluation, teachers believe they shared common personality traits with their co-teachers, and the co-teaching pairs plan instruction together. However, none of the qualitative instruments directly addressed if teachers planned outside of school hours. Thus, the results of the study are inconclusive in respect to Research Question 2.

Chapter Five

Discussion

The purpose of the study was to understand how personality may impact co-teaching relationships. Special Education Administrator and School Principal Responsibilities include planning training for teachers who co-teach together, observing teaching pairs, and scheduling classes to support students in the general education setting by pairing teachers together in the core academic subject areas (Murawski, 2015). Some teachers work together well, plan together, teach using research-based instructional strategies, seem to enjoy teaching together, and data from their classroom suggests students grow and learn. Some teachers are effective in a classroom environment alone. However, when paired with another teacher, the team is not as effective. The teachers do not consistently plan together or seem to work as a team when in the classroom. Part of this may be due to a lack of time to prepare and design instructional lessons and classroom management techniques. Another reason may lie in the personality types of the teachers (Stark, 2015). Part of the reason the team is not as effective may be that their personalities are not compatible. I found a gap in the research and could not find a study linking personality types to co-teaching teams.

Analysis of the Hypothesis Statements

Alternative Hypothesis 1: There is a relationship between co-teaching teams who have similar personalities and difficulty finding time to plan together weekly measured by an online personality assessment based on Myers Briggs Personality Indicator, Typefinder, and pre- and post-survey data.

The results of the Typefinder personality assessment can be found in Table 5. The personality assessment results aligned six of the seven co-teaching pairs as sharing at least three out of four dichotomous categories in their personality assessment. The pre- and post-survey question most closely aligned to the Alternative Hypothesis stated, "My co-teaching partner and I find it difficult to find times to plan during the week." Therefore, study results accept Alternative Hypothesis 1; There is a relationship between teachers with a similar personality type and difficulty finding time to plan together weekly. Qualitative data collected during individual teacher interviews and through observation supported that the participants in the study plan together on a regular basis. One can find the results of the observations in Aggregate Data Table 9. Evidence of the co-teachers planning together was present in six out of the six classrooms. During one-on-one interviews with teachers, all the teachers interviewed indicated they planned with their co-teachers in various ways.

Alternative Hypothesis 2: There is a relationship between co-teaching teams with similar personalities and job satisfaction as measured by Typefinder created by Truity, an online personality assessment based on Myers Briggs Personality assessment, and pre- and post-survey data.

Alternative Hypothesis 2 is accepted. There is a relationship between co-teaching teams with similar personalities and job satisfaction. The results of the personality assessment, Typefinder, can be found in Table 5. Six of the seven co-teaching pairs shared at least three of the four dichotomous personality categories. Through the pre- and post-surveys, teachers report their job satisfaction has increased because of co-teaching together. The qualitative data to support the results of Alternative Hypothesis 2

is in the interview data. Four out of four teachers interviewed indicated they enjoyed working with their co-teaching partner.

Alternative Hypothesis 3: There is a relationship between co-teaching teams with similar personality types and enjoyment of working as a team as measured by Typefinder by Truity, an online personality assessment based on Myers Briggs, and pre- and post-survey data. The results of the Typefinder personality assessment can be found in Table 5.

According to the study results, Alternative Hypothesis 3 is not accepted. There is no relationship between co-teaching teams with similar personality types and enjoyment of working as a team. The results of the Typefinder personality assessment can be found in Table 5. The *p*-value for Null Hypothesis 3 was .05, and the alpha value was .05. Twelve teachers completed the online survey. The results might have been different for Alternative Hypothesis 3 if there had been more participants. Another point to consider, the pre- and post-survey question linked to Alternative Hypothesis 3, is in interview question 5. "Do you enjoy working as a team in the classroom?" All four respondents stated they did enjoy working as a team in the classroom.

Alternative Hypothesis 4: There is a relationship between co-teaching teams with similar personality types and teams working together for over three years as measured by Typefinder by Truity, an online personality assessment based on Myers Briggs and pre- and post-survey data.

The Alternative Hypothesis is not accepted. There is no relationship between co-teaching teams with similar personalities and teams working together for over three years. Six of the seven co-teaching teams matched in at least three of four of the

personality categories as measured by the personality assessment results. In the survey data, most of the teaching teams have worked together for two years or less. One can find qualitative data to support Alternative Hypothesis 4 in interview question four, which asks, “How many years have you worked together?”

Three of the four teachers had worked together for four months, and one teacher reported working with her co-teacher for two years. I created the alternative-hypothesis question before recruiting the co-teachers to take part in the study. There was no chance accept this Alternative Hypothesis due to the average longevity of the co-teaching pairs that participated in the study.

Analysis of the Research Questions

Research Question 1: How does personality type affect co-teaching relationships? A summary of each teacher’s personality type is found in Table 5. The personality assessment results indicate that six of the seven pairs share at least three out of four personality type indicators. In addition, two of the seven pairs have exact personality type matches.

I collected the data to analyze the research questions through a focus group interview between co-teachers, one-on-one consultation with individual teachers, and classroom observational data. The focus group questions centered around the personality assessment and the teacher's perceptions of the evaluation and each other. The interview questions dug a little deeper into the teacher’s co-teaching experiences, teaching practice, and personality assessment. Finally, classroom observational data focused on teaching practice in the classroom. Different themes emerged from other instruments. For a summary of the themes, see Table 10.

The focus group interviews revealed the results of each of the co-teachers' personality assessments. The results of the evaluation can be found in Table 5. Several themes around the personality assessment emerged. First, most teachers were not surprised by the results of the personality assessment. Second, all participants agreed that the results of the personality assessment accurately described them. Third, many respondents directly stated that each could see how their co-teaching partner was similar in personality. The central theme in personality differences was in the way each teacher handled stress or conflict. Finally, teachers reported taking the personality assessment and talking about it is beneficial if the team is relatively new to working together.

Themes surfaced in the interview relating to the participant's co-teaching experiences. For a summary of the themes, see Table 10. All teachers interviewed enjoy working with their current co-teaching partner and reported their job satisfaction increased because of their working relationships with their co-teaching partner. Most of the teachers interviewed described their teaching style as like their co-teacher's teaching style. All reported classroom management styles as similar, and all stated they could see student achievement improve in various areas. All teachers agreed with the personality assessment, and all thought the personality assessment was accurate. Most teachers reported their co-teacher's personality was like their personality. All teachers find time to plan together in various ways, including meeting virtually on Zoom.

Observational data focused on classroom practices. I observed six of the seven pairs in a virtual classroom. For a summary of the observational data, see Table 9. The themes emerging from observational data focused on instructional practices. For an overview of the themes, see Table 10. In all the classrooms, I observed research-based

instructional strategies and active supervision of students by interacting with teachers. There were evidence classroom rules and routines were established and practiced by students, both teachers participated in the instruction, and it was evident instructional planning was present. In most classrooms, it was apparent teachers planned together, students had multiple opportunities to respond, and student engagement appeared over 80% in the virtual classroom. To summarize, the observations revealed that the co-teaching pairs worked together to deliver instruction using research-based instructional strategies.

A summary of the different themes prevailing during focus group discussions, observations, and interviews is in Table 10. Several themes reoccurred in the study. The reoccurring themes included: teachers were not surprised by the results of the personality type assessment, the teachers agreed with the results of the evaluation, teachers believe they shared common personality traits with their co-teachers, and the co-teaching pairs plan instruction together. Based on the data collected related to research question one, personality impacts co-teaching relationships. If teachers are similar to one another, they report higher job satisfaction, spend time together planning instruction. They tend to share similar classroom management and instructional philosophies, exhibit a positive climate in the classroom, and communicate with each other inside and out of class.

Quantitative Data Supporting Research Question 1

There were questions on the pre- and post-survey that did not directly tie into the Null Hypothesis statements. However, the results of the *t*-test found the survey questions listed in Table 11 to be statistically significant and can support Research Question 1: How does personality affect co-teaching relationships? According to the survey results,

there were several prevailing trends. First, co-teachers are aware of the other teacher's instructional strengths. Second, the teams believe they make a good teaching team. Third, student achievement increases in their co-teaching classrooms. Fourth, they share similar approaches to building relationships with students. Fifth, they believe they can have difficult conversations with each other. Finally, teachers report they have established a trusting relationship with their co-teaching partner.

Table 13

Survey Questions Related to Research Question 1

Question	Pre-Survey	p-value	Post Survey
4. My co-teaching partner is aware of my teaching strengths.	1.67 (M)	.01	1.17 (M)
7. My co-teaching partner and I make a good teaching team.	1.33 (M)	.02	1.00 (M)
8. Our co-teaching increases student achievement as measured by student data (tests, common assessments, MAP or EOC).	1.92 (M)	.02	1.33 (M)
9. My co-teaching partner and I have a similar approach to building relationships with students.	1.75 (M)	.02	1.33 (M)
11. If needed, I can have difficult conversations in relation to classroom management with my co-teaching partner.	1.75 (M)	.01	1.17 (M)
14. My co-teaching partner and I have built a trusting relationship.	1.50 (M)	.01	1.00 (M)

Research Question 2: Do co-teaching pairs collaborate outside of school hours consistently if they have similar personality types as measured by Typefinder by Truity, an online personality assessment based on Myers Briggs?

A summary of each teacher's personality type is in Table 5. The personality assessment results indicate that six of the seven pairs share at least three out of four personality type indicators. In addition, two of the seven pairs have exact personality type matches. There was a flaw in the research design, and the data collected did not specifically answer

Research Question 2. The focus group discussion did not include a question directed to teachers to answer whether they planned outside of school hours. No question asked during the interviews revealed whether teachers planned outside of school hours. Therefore, the results were inconclusive. It was found in the study co-teachers with similar personalities plan instruction together.

Implications

The results of the study indicate co-teachers with similar personality plan instruction together once a week. Teachers experience increased job satisfaction due to their co-teaching relationship. The participants in the study report an increase in student achievement. They communicate positively with one another in the classroom. Each supports all students learning in the class. They share similar classroom management strategies. They agree with the results of the personality type assessment. Teachers new to teaching together reported participation in the study, and discussing the results of the personality type assessment together strengthened their relationship. Those who have taught together for more than a year thought Typefinder is a valuable tool for those new to teaching together. Teachers valued their relationships with their colleagues and rated these relationships high on the scale of reasons they remain in the teaching profession (Martson, 2010). There are several meaningful ways to apply what I learned in this study

into schools implementing the co-teaching model. Instructional Administrators can allow teachers to choose their co-teaching partners, incorporate a personality assessment in professional development for teachers, and ensure co-teachings have a common plan time.

Educators often compare the co-teaching relationship in the classroom to a professional marriage (Sileo, 2011). Administrators expect co-teachers to prepare together to deliver instruction, communicate with one another, establish learning goals, plan lessons together, implement classroom management strategies, differentiate learning for a diverse group of learners, and make accommodations and modifications for students with IEPs. In a successful classroom, students do not know which teacher is the general education teacher and which teaches special education because both teachers work with all students (Kames, et al., 2013). Teachers need to work well together, and if teachers can choose who they teach with, productive co-teaching teams will naturally form. Teachers tend to gravitate to people like themselves and often will instinctively pick someone with a similar personality. If teachers cannot choose a partner, administrators can create an opportunity to complete surveys relating to teaching styles, learning preferences, personalities, or personal dispositions (Murawski, 2015). This study indicates that teachers with similar personalities have positive co-teaching relationships, which increases job satisfaction; teachers plan together at least weekly. In addition, teachers in the study reported student achievement increased.

Providing professional development to teachers in co-teaching strengthens teachers' knowledge and skillset when working with a diverse group of learners. Typically, professional development in co-teaching instructs participants on the six

models of co-teaching and reviews teacher's roles and responsibilities as it relates to the co-taught classroom. Teachers can become frustrated while co-teaching if they do not have a common understanding of each other's roles in the classroom. This lack of knowledge can lead to the special education teacher taking on the role of a teacher's assistant or paraprofessional in a general education classroom (Dieker & Murawski, 2003). The co-teaching model recognizes both teachers as vital instructors in the classroom who work together to support all students in learning. During a professional development session, carve out time for teachers to complete a personality type assessment, review the assessment results, and provide time for the co-teachers to discuss their results with each other to learn about themselves about their co-teaching partner. Professional development is one key to a successful co-taught program (Dieker & Murawski, 2003). The results of this study support teachers new to working together found it beneficial to take the personality assessment to learn more about each other.

Co-teachers with similar personalities reported spending time at least weekly planning instruction for the classroom. When teachers share a class, it is essential to make it relatively easy for them to find a standard time to plan and prep together. Inadequate plan time for co-teaching is often a significant obstacle in the co-teaching model. For example, suppose administrators do not consider plan time while creating a schedule in the secondary schools. In that case, the general and special education teachers do not have the same time allocated each day to plan. When creating the master schedule for teachers, it is important to review the designed co-teaching teams and ensure teachers have a common plan time built into the day. Shared plan time is more likely to occur if special education teachers are designated to teach in specific content areas (Murawski,

2015). The results of this study indicate co-teachers with similar personalities plan together. When possible, it is essential to place teachers who have similar personality types together in a co-taught classroom and build time in the schedule to build that time into their schedules.

Unexpected Results

The unexpected results in this mixed-methods study occurred in two of the null hypothesis statements and one of the research questions. In the quantitative portion of the study, the unanticipated was the results of Null Hypothesis 3 and Null Hypothesis 4. I predicted the results of the study would result in rejecting both Null Hypotheses 3 and 4. On the other hand, I did not expect the findings of the qualitative portion of the study related to Research Question 2. In the following paragraphs, I will summarize why the study yielded the conclusions it did for these items.

Null Hypothesis 3 states that there is no relationship between co-teaching teams with similar personality types and enjoyment of working as a team as measured by Typefinder by Truity, an online personality assessment based on Myers Briggs, and pre- and post-survey data. Overall, the teachers participating in the study have similar personality types. The survey question relating to teachers perceiving themselves as sharing similar personality characteristics supports the results of Typefinder. However, the pre- and post-survey data result in enjoyment of working as a team in the classroom resulted in an alpha of .05. The results of the *t*-test can be found in Table 9. An alpha value of .05 is not less than .05. Therefore, the null hypothesis is accepted. Fourteen teachers participated in the study. Twelve participants completed both the pre- and post-

surveys in the study. It is my belief the smaller sample size may have impacted the results of Null Hypothesis 3.

Null Hypothesis 4**:** There is no relationship between co-teaching teams with similar personality types and teams working together for over three years as measured by Typefinder by Truity, an online personality assessment based on Myers Briggs and pre- and post-survey data. The way the statement reads, it is assumed that a more significant number of co-teaching partners participating in the study have worked together for over three years to yield an alpha value of statistical significance when running the *t*-test regarding Null Hypothesis 4. Most of the teachers represented in this research have worked with their co-teacher for two years or less.

Research Question 2 asks: Do co-teaching pairs collaborate outside of school hours consistently if they have similar personality types as measured by Typefinder by Truity, an online personality assessment based on Myers Briggs? There was a flaw in the study's design in that there was no question asking participants if they planned outside of school hours. While there are several data points related to planning in the study, this inquiry did not get answered. I am aware of several co-teaching pairs collaborating outside of school hours; however, the study does not support this statement.

Recommendations

I recommend several changes if a researcher is considering replicating this study. My first recommendation is to increase the population of likely participants by reaching out to several school districts to receive approval to conduct the study. Increasing the population of potential co-teaching participants can increase the number of participants in the study and support the validity of the research.

I completed the research during the COVID-19 pandemic, and classes were held virtually during data collection. Therefore, a second consideration is to conduct the study in person, if possible. While Zoom is an effective tool for virtual collaboration and classes, it is not a perfect substitute for face to face-to-face communication. In-person interviews, focus groups, and classes will provide details that web-based meeting software misses.

A third suggestion is if a school district does not require a flyer describing the pros and cons of a personality type assessment, do not include one when recruiting participants. Approval to complete the study was contingent upon one of the school district's requests to include a flyer describing personality assessments' positive and negative aspects. The brochure may have had an impact on the number of teachers recruited to participate in the research.

The fourth recommendation is to remove Null Hypothesis 4 from the study. The teaching pairs who volunteer to participate may or may not have worked together for over three years. From my experience in completing this study, the seasoned co-teaching teams did not participate in the study. Instead, they may have elected not to participate because they have worked together for years and already know each other well.

A fifth point to consider is to eliminate or reword Research Question 2. The current design of the study is flawed and does not support it. Instead, consider reframing Research Question 2 to state: Do co-teaching pairs collaborate and consistently plan if they have similar personality types as measured by Typefinder by Truity, an online personality assessment based on Myers Briggs? This question supports the data collected

during the interview and demonstrated by teachers during observations of co-taught classrooms.

A final consideration is to review the qualitative data collection instruments and add questions in the focus group and interview sessions to support the themes across all instruments. For example, in the focus group and interview sessions, I would add a question or two to support the data collection in the observation. Currently, the instruments do not strongly support each other because the design of each instrument focuses on a different aspect of the co-teaching relationship, and not many themes reoccurred.

Discussion

The results of this study suggest teachers with similar personalities work effectively in a co-taught classroom. Therefore, it is essential to align effective teaching pairs for a successful school year. When selecting co-teaching teams, ask teachers who they prefer to work with and consider embedding personality type assessment during co-teaching professional development. When teachers are allowed to reflect on their preferences and learn more about their co-teacher, the personality assessment can be a steppingstone to increase self-awareness and build relationships. Research suggests teachers with similar personalities are compatible in a co-taught classroom. Administrators can benefit from this knowledge by pairing special and general education teachers who are compatible and ensuring they have a common plan time during the day.

A recommendation for future research is to examine the dynamics of an effective Professional Learning Community and how personality type may impact a group of over two people. Professional Learning Communities or PLCs are a team of teachers

organized by subject or grade who work together to improve instruction and raise student achievement (DuFour, 2004). The power of PLCs comes from collective efficacy, which is teachers' shared conviction that they can make a positive difference in their student's academic achievement and lives. Hattie, a well-known researcher, rated collective efficacy as the number one practice teachers impact student achievement (Visible Learning, 2021). Both co-teaching and PLCs are breeding grounds for collective efficacy. How personality types affect the team dynamics of a Professional Learning Community is an exciting topic for future study.

Conclusion

The history of special education is rooted in the Civil Rights movement. The Civil rights movement indirectly and directly opened pathways allowing students with disabilities to access public education with their non-disabled peers to the greatest extent possible. Over the last 70 years, a transformation has occurred in education regarding special education and how services are delivered. An event influencing Special Education occurred in May 1954 when the U.S. Supreme Court ruled it is unconstitutional to separate and educate students by race in *Brown v. Board of Education of Topeka* (Administrative Offices of the U.S. Courts, 2001). This court case influenced special education in the years ahead when it determined separate is not equal. Just as separate is not equal applies to students of all races, it also applies to students of all abilities.

Students with disabilities have not continuously received instruction with their general education peers. Inclusion in education transpires when students with and without disabilities learn together. A few positive outcomes from including all students

in the classroom include learning essential academic skills. Families can see their child engaging in a “typical” education where he or she is learning with all peers. Inclusion allows students to work with many different types of kids and learn how to embrace diversity, access the natural supports of their peers, and students have the opportunity to form friendships (PBS, 2003-2009). In addition, inclusion allows all students access to a rigorous curriculum and challenge is suitable for all students.

Co-teaching is an instructional strategy used in classrooms around the world, and it gives students with IEPs access to the instructional curriculum in the general education classroom. In a co-taught classroom, general education and special education teacher collaborate to deliver instruction to all students. The instructional partnership in a co-taught classroom is vital to the success of all students. When teachers in a co-taught classroom plan instruction together, collaborate in the class, share responsibilities, work together to implement research-based best practices, and communicate, students' achievement will increase. The research in this study supports co-teachers with similar personality types report their job satisfaction has increased because of their co-teaching relationship. In addition, teachers with similar personality types take time weekly to plan instruction together, implement research-based instructional strategies, and report in their co-teaching classrooms student achievement has increased.

References

Administrative Offices of the U.S. Courts. (2001). *History - Brown v. Board of Education Re-enactment*. United States Courts: uscourts.gov/educational-resources/educational-activities/history-brown-v-board-education-re-enactment

Akhtara, S. N., Hashmi, M. A., & Naqvi, S. I. (2010). A comparative study of job satisfaction in public and private school teachers at secondary level. *Procedia Social and Emotional Sciences, 2*(2), 4221-4228.

American Disabilities Act National Network. (2020, November). *What is the American Disabilities Act (ADA)?* adata.org: https://adata.org/learn-about-ada

American Disability Act National Network. (2020, November). *What is the definition of disability under ADA?* ADA, National Network: https://adata.org/faq/what-definition-disability-under-ada

American Psychological Association. (2021). *Individuals with Disabilities Education Act*. apa.org: https://www.apa.org/advocacy/education/idea

Armentrout, D. P., & Stout, D. W. (2015). Resiliency study for first and second year medical residents. In L. A. Winters-Miner, P. S. Bolding, J. M. Hilbe, M. Goldstein, T. Hill, R. Nisbet, & G. D. Miner, *Practical Predictive Analytics and Decisioning Systems for Medicine* (pp. 462-530). Amsterdam: Elsevier.

Arons, L. E. (2021). *Landmark cases in special education law.* Lori E Arons, Special Education Law: https://specialeducationlawyernj.com/special-education-law/landmark-cases-in-special-education-law/

ASHE Higher Education Report. (2013). A historical overview of the disability movement. *ASHE Higher Education Report*, pp. 13-29.

Blout, M., Schaubhut, N., Thompson, R., & Dost, N. (2018). Wellbeing and personality type in the workplace: An international comparison. *Assessment and Development, 10*(4), 7-11.

Cassel, S. (2019, October 9). *How to choose a co-teaching model.* Edutopia: https://www.edutopia.org/article/how-choose-co-teaching-model

Chin, T., & Rowley, C. (2018). A Yin–Yang Harmony Cognition to employer–employee relationships. In T. R. Chin, *The Future of Chinese Manufacturing, Employment and Labour Challenges* (pp. 109-151). Amsterdam: Elsevier Limited.

Cornell Law. (1992). *Board of Education of the Hendrick Hudson School District Board of Education of Westchester County et al., Petitioners v. Amy ROWLEY, by her parents and natural guardians, Clifford and Nancy Rowley etc.* Cornell Law School Legal Information Institute: https://www.law.cornell.edu/supremecourt/text/458/176

Cosier, M. P., Causton-Theoharis, J. P., & Theoharis, G. P. (2013). Does access matter? Time in general education and achievement for students with disabilities. *Remedial and Special Education, 34*(6), 323-332.

Davis, L. (2020, February 1). *Teacher collaboration: How to approach it in 2020*. Schoology Exchange: https://www.schoology.com/blog/teacher-collaboration

Dessemontet, R., Bless, G., & Morin, D. (2011). Effects of inclusion on the academic achievement and adaptive behaviour of children with intellectual disabilities. *Journal of Intellectual Disability Research, 6*, 579-587.

Dieker, L. A., & Murawski, W. W. (2003). Co-Teaching at the secondary level: Unique issues, current trends, and suggestions for success. *High School Journal, 86*(4), 1-13.

Donohoo, J., Hattie, J., & Eells, R. (2018). The power of collective efficacy. *Educational Leadership, 75*(6), 41-44.

DuFour, R. (2004, May 1). *What is a professional learning community?* ascd.org: https://www.ascd.org/el/articles/what-is-a-professional-learning-community

Dussault, M., Deaudelin, C., Royer, N., & Loiselle, J. (1999). Professional isolation and occupational stress in teachers. *Psychological Reports, 84*(3), 943-946.

Edwards, S. (2015, October 29). *Examining the relationship between workplace satisfaction and productivity*. www.Inc.com : https://www.inc.com/samuel-edwards/examining-the-relationship-between-workplace-satisfaction-and-productivity.html

Friend, M., & Bursuck, W. D. (2009). Co-teaching approaches. In M. Friend, & W. D. Bursuck, *Including Students with Special Needs: A Practical Guide for Classroom Teachers* (p. 92). Columbus: Merrill.

Giardina, C. (2019, November 19). *What does an inclusive classroom look like?* Inclusive Schools: https://inclusiveschools.org/what-does-an-inclusive-classroom-look-like/

Glen, S. (2021). *T Test (Student's T-Test): Definition and examples*. StatisticsHowTo.com: https://www.statisticshowto.com/probability-and-statistics/t-test/

Great Schools Partnership . (2013, October 8). *The glossary of education reform*. Great Schools Partnership: https://www.edglossary.org/common-planning-time/

Guy-Evans, O. (2020, November 9). *Introvert and extrovert personality traits*. Simply Psychology: https://www.simplypsychology.org/introvert-extrovert.html

Hampton, A., Fisher-Boyd Amanda, N., & Sprecher, S. (2019). You're like me and I like you: Mediators of the similarity–liking link assessed before and after a getting-acquainted social interaction. *Journal of Social and Personal Relationships*, *36*(4), 2221-2244.

Hunter, M. R. (2018). What is teaching practice. In C. L. Fitzgerald, *Student-Centered Strategies in Online Adult Learning Environments* (pp. 365-384). Herehey: IGI Global. IGI Global: Publisher of Timely Knowledge: https://www.igi-global.com/dictionary/teaching-practice/55861

Inclusive Schools. (2020). *Inclusion basics*. Inclusive Schools: https://inclusiveschools.org/category/resources/inclusion-basics/

Johnson, S. M. (2011). *How context matters in high-need schools: The effects of teachers' working conditions on their professional satisfaction and their students' achievement.* Cambridge, MA: Harvard Graduate School.

Justia U.S. Law. (2021). *Oberti v. Board of Educ., 801 F. Supp. 1392 (D.N.J. 1992).* Justia U.S. Law: https://law.justia.com/cases/federal/district-courts/FSupp/801/1392/1945004/

Kalra, A. (2020, September 24). *Teacher collaboration in challenging learning environments*. OECD Education and Skills Today: https://oecdedutoday.com/teacher-collaboration-challenging-learning-environments/#:~:text=It%20fell%20on%20teachers%20to,joint%20activities%20and%20knowledge%20creation.

Kames, M. W., Susko, J., & and Elliott, J. (2013). Evaluation and supervision of co-teaching: A study in administrator practices in New Jersey. *NASSP Bulletin, 97*(3), 166-190.

Kovaz, D. (2021). *Considerations for data collections in pre and post test designs*. Complete Dissertation by Statistical Solutions: https://www.statisticssolutions.com/considerations-for-data-collection-in-pre-testpost-test-designs/

LaNear, J., & Frattura, E. (2007, June). Getting the stories straight: allowing different voices to tell an 'effective history' of special education law in the United States. *Education and Law, 19*(2), 87-109.

Lee, A. L. (2014-2021). *Individuals with Disabilities Education Act (IDEA): What you need to know*. Understood.org: https://www.understood.org/en/school-learning/your-childs-rights/basics-about-childs-rights/individuals-with-disabilities-education-act-idea-what-you-need-to-know

Martson, S. H. (2010). Why do they teach? A comparison of elementary, high, and college teachers. *Education, 131*(2), 437-454.

McCaulley, M. H. (1990). The Myers-Briggs type indicator: A measure for individuals. *Measurement & Evaluation in Counseling & Development, 22*(4), 22.

Medeylan, A. P. (2020). *Coding qualitative data: How to code qualitative research*. Insights by Thematic: https://getthematic.com/insights/coding-qualitative-data/

Moore, L. D. (2004). Using the Myers-Briggs Type Indicator in field education supervision. *The Journal of Social Work Education, 40*(2), 337-349.

Mountain, J. (2019, March 20). *Co-teaching offers new opportunities for students with special needs*. Public School Review: https://www.publicschoolreview.com/blog/co-teaching-offers-new-opportunities-for-students-with-special-needs

Moyle, P., & Hackston, J. (2018). Personality assessment for employee development: Ivory tower or real world? *Journal of Personality Assessment, 100*(5), 507-517.

Mulvahill, E. (2018, May 25). *What is an IEP?* . We are Teachers: www.weareteachers

Murawski, W. W. (2015, December). An administrator's guide to co-teaching. *Educational Leadership*, pp. 30-34.

The Myers Briggs Foundation. (2021). *Sensing or intuition*. Myers Briggs : https://www.myersbriggs.org/my-mbti-personality-type/mbti-basics/sensing-or-intuition.htm

Nichols, J., Dowdy, A., & Nichols, C. (2010). Co-Teaching: An educational promise for children with disabilities or a quick fix to meet the mandates of No Child Left Behind. *Education, 130*(4), 647-651.

Nierengarten, G. E. (2013). Supporting co-teaching teams in high schools: Twenty research-based practices. *American Secondary Education, 42*(1), 73-83.

O'Brennan, L., Pas, E., & Bradshaw, K. (2017). Multilevel examination of burnout among high school staff: Importance of staff and school factors. *School Psychology Review, 46*(2), 165-176.

Okilwa, N. S., & Shelby, L. (2010). The effects of peer tutoring on academic performance of students with disabilities in grades 6 through 12: A synthesis of the literature. *Remedial and Special Education, 31*(6), 450-463.

Onwuegbuzie, A., & Collins, K. (2007). A typology of mixed methods sampling designs in social science research. *The Qualitative Report, 12*(2), 281-316.

Owens, M. (2012). *Typefinder Personality Assessment, technical documentation.* Truity.com: https://www.truity.com/sites/default/files/fillpdf/typefinder-technicaldoc.pdf

Owens, M. (2020). *Compatibility and Myers & Briggs' Personality Types*. Truity: https://www.truity.com/myers-briggs/compatibility-myers-briggs-personality-type

Owens, M. (2020). *Judging vs. perceiving*. Truity: https://www.truity.com/myers-briggs/judging-vs-perceiving

Owens, M. (2020). *Thinking vs. feeling*. Truity.com: https://www.truity.com/myers-briggs/thinking-vs-feeling

PBS. (2003-2009). *The benefits of inclusive education*. pbs.org: pbs.org/parents/education/learning-disabilities/inclusive-education

Poonam, D., & Haynes, L. (2015). Teacher perspectives on suitable learning environments for students with disabilities: What have we learned from inclusive, resource, and self-contained rooms? *The International Journal of Interdisciplinary Social Sciences: Annual Review, 9*(1), 58-61.

Pratt, S. E., Imbody, S. M., Wolf, L. M., & Patterson, A. M. (2017). Co-planning in co-teaching: A practical solution. *Intervention in School and Clinic, 52*(4), 243-249.

Remenova, K., & Jankelova, N. (2019). Decision-making style of agribusiness managers. *Agricultural Economics – Czech, 65*(7), 322-330.

Rideout, C., & Richardson, S. (1989). Appreciating differences using the Myers-Briggs Type Indicator with developmental theory. *The Journal Of Counseling and Development, 67*(9), 529-533.

Samuels, C. (2015). Challenge of co-teaching A special education issue. *Education Week, 34*(34), 1-11.

Schlichte, J., Yssl, N., & Merbler, J. (2005). Pathways to burnout: Case studies in teacher isolation and alienation. *Preventing School Failure, 50*(1), 35-40.

Scruggs, T. E., & Mastropieri, M. A. (2017, March/Arpil). Making inclusion work with co-teaching. *Teaching Exceptional Children*, *49*(4), pp. 285-292.

Seidman, G. (2018, December 18). *Why do we like people who are similar to us?* Psychology Today : https://www.psychologytoday.com/us/blog/close-encounters/201812/why-do-we-people-who-are-similar-us

Shier, R. (2004). *Statistics: 1.1 Paired T-Tests.* Statistics: 1.1 Paired t-tests - Statstutor: https://www.statstutor.ac.uk/resources/uploaded/paired-t-test.pdf

Shorten, A., & Smith, J. (2017, July). Mixed methods research: expanding the evidence base. *Evidence Based Nursing*, *20*(3), 74. BMJ Journals.

Sileo, J. M. (2011). Co-Teaching: Getting to Know Your Partner. *Teaching Exceptional Children, 43*(5), 32-38.

Singh, R. W. (2017). Attitude similarity and attraction: Validation, positive affect, and trust as sequential mediators. *Journal for International Research Association of Relationship Research*, *24*(1), 201-222.

Special Education Rights and Responsibilities, Disability Rights of California. (2021). *Information on the Least Restrictive Environment*. Special Education Rights and Responsibilities: https://serr.disabilityrightsca.org/serr-manual/chapter-7-information-on-least-restrictive-environment/7-1-what-does-least-restrictive-environment-lre-mean/

Special School District. (2014). Inclusion matters. In S. S. District, *inclusion Matters* (pp. 1-34). St. Louis: Special School District of St. Louis County.

Stark, E. (2015). Co-teaching: The benefits and disadvantages. *Journal on Best Teaching Practices, 2*(2), 7-8.

Statistical Solutions. (2021). *Qualitative data collection during a global pandemic*. Complete Dissertation, by Statitical Solutions: https://www.statisticssolutions.com/qualitative-data-collection-during-a-global-pandemic/

Statistics How To. (2021). *Cronbach's Alpha: Simple definition, use and Interpretation*. Statistics How to: https://www.statisticshowto.com/probability-and-statistics/statistics-definitions/cronbachs-alpha-spss/

Stein, E. (2017, March 9). *What is co-teaching? An introduction to co-teaching and inclusion.* Cast Professional Publishing: http://castpublishing.org/introduction-co-teaching-inclusion/

Tillman, M. (2021, February 15). *What is Zoom and how does it work? Plus tips and tricks*. Pocketlint: https://www.pocket-lint.com/apps/news/151426-what-is-zoom-and-how-does-it-work-plus-tips-and-tricks

Truity. (2019). *TrueIdentity Personality Assessment*. Truity.com: www.truity.com

Truity. (2020). *About us*. Truity.com: https://www.truity.com/page/about-us

Truity. (2020). *Myers Briggs' 16 Personality Types*. Truity: https://www.truity.com/page/16-personality-types-myers-briggs

Typefinder. (2020). *About the Typefinder Personality Assessment*. Typefinder: https://www.typefinder.com/page/typefinder-personality-assessment#:~:text=We%20surveyed%20857%20volunteers%20who,Extremely%20Accurate%20or%20Very%20Accurate.

Understood for All. (2019). *FAPE at a glance*. Understood.org: https://assets.ctfassets.net/p0qf7j048i0q/3SxlMzMGCZDKd7RvcGwi91/21678677a199e994f53be0cbf84ed54a/Free_and_Appropriate_Public_Education__FAPE__Understood.pdf

University of Virginia . (2021). *Employees as particpants*. Univeristy of Virginia, Human Research Protection Program: https://research.virginia.edu/irb-sbs/employees-participants

U.S. Department of Education. (2010, November 22). *Thirty-five years of progress in educating children with disabilities through IDEA*. U.S. Department of Education: https://www2.ed.gov/about/offices/list/osers/idea35/history/index_pg10.html

U.S. Department of Education. (2017, May 2). *Sec. 300.39 Special education*. IDEA: Individuals with Disabilities Act: https://sites.ed.gov/idea/regs/b/a/300.39

Utah State Office of Education. (2011, September). *Co-teaching handbook: Utah guidelines.* Finalsite.net: https://resources.finalsite.net/images/v1583541712/davisk12utus/vkbe748ncmi5m2qlvhby/USBE-Co-TeachingHandbook.pdf

Valeo, A. (2008). Inclusive education support systems: Teacher and administrator views. *The Journal of Special Education, 23*(3), 8-16.

Vanderbilt Peabody College, IRIS Center. (2021). *Iris Center, information brief: Least restrictive environment*. Iris Center: https://iris.peabody.vanderbilt.edu/wp-content/uploads/pdf_info_briefs/IRIS_Least_Restrictive_Environment_InfoBrief_092519.pdf

Visible Learning. (2021). *Collective teacher efficacy (CTE) according to John Hattie*. Visible Learning: https://visible-learning.org/2018/03/collective-teacher-efficacy-hattie/

Visible Learning. (2021). *Visible learning*. Hattie Ranking: 252 Influences And Effect Sizes Related To Student Achievement: https://visible-learning.org/hattie-ranking-influences-effect-sizes-learning-achievement/

Waite, R. M. (2018). Personality typology: Understanding your preferences and striving for team effectiveness. *The AFNF Journal, 29*(1), 9.

Williams, L. T. (1995). The utility of the Myers Briggs in couples counseling: A clinical framework. *The American Journal of Family Therapy, 23*(4), 367-371.

Wright, P. W. (2006). *Summary of the major changes in the regulations.* Wrights Law: https://www.wrightslaw.com/idea/law/idea.regs.sumry.chngs.pdf

Zembylas, M. P. (2006). Sources of teacher job satisfaction and dissatifaction in Cyprus. *Compare, 36*(2), 229-247.

Appendix

Pre-Survey Co teaching *(Instrument 1)*

Answer the following questions in relation to your current co-teaching assignment.

Q1 Your role in the co-teaching partnership is

- ○ General Education Teacher (1)
- ○ Special Education Teacher (2)

Q2 How long have you worked with your co-teaching partner?

- ○ less than a year (1)
- ○ 1 to 2 years (2)
- ○ 3 to 5 years (3)
- ○ 6 to 10 years (4)
- ○ over 10 years (5)

Q3 I know my co-teaching partners teaching strengths.

- ○ Strongly agree (1)
- ○ Somewhat agree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat disagree (4)
- ○ Strongly disagree (5)

Q4 My co-teaching partner is aware of my teaching strengths.

- Strongly agree (1)
- Somewhat agree (2)
- Neither agree nor disagree (3)
- Somewhat disagree (4)
- Strongly disagree (5)

Q5 I know my co-teaching partner's communication preferences (text, e-mail, phone call, face-to-face meeting).

- Strongly agree (1)
- Somewhat agree (2)
- Neither agree nor disagree (3)
- Somewhat disagree (4)
- Strongly disagree (5)

Q 6 I believe my co-teacher and I have compatible personality types.

- Strongly agree (1)
- Somewhat agree (2)
- Neither agree nor disagree (3)
- Somewhat disagree (4)
- Strongly disagree (5)

Q7 My co-teaching partner and I make a good teaching team.

- ○ Strongly agree (1)
- ○ Somewhat agree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat disagree (4)
- ○ Strongly disagree (5)

Q8 Our team teaching increases student achievement as measured by student data (tests, common assessments, MAP, or EOC).

- ○ Strongly agree (1)
- ○ Somewhat agree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat disagree (4)
- ○ Strongly disagree (5)

Q9 My co-teaching partner and I have a similar approach to building relationships with students.

- ○ Strongly agree (1)
- ○ Somewhat agree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat disagree (4)
- ○ Strongly disagree (5)

Q10 My co-teaching partner and I have a similar approach regarding classroom management.

- ○ Strongly agree (1)
- ○ Somewhat agree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat disagree (4)
- ○ Strongly disagree (5)

Q11 If needed, I know I can have difficult conversations about classroom instruction or management with my co-teaching partner.

- ○ Strongly agree (1)
- ○ Somewhat agree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat disagree (4)
- ○ Strongly disagree (5)

Q12 My job satisfaction is increased because I have a good relationship with my co-teaching partner.

- ○ Strongly agree (1)
- ○ Somewhat agree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat disagree (4)
- ○ Strongly disagree (5)

Q13 I enjoy working as a team in the classroom.

- ○ Strongly agree (1)
- ○ Somewhat agree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat disagree (4)
- ○ Strongly disagree (5)

Q14 My co-teaching partner and I have built a trusting relationship.

- ○ Strongly agree (1)
- ○ Somewhat agree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat disagree (4)
- ○ Strongly disagree (5)

Q15 My co-teaching partner and I can anticipate each other's actions in the classroom.

- ○ Strongly agree (1)
- ○ Somewhat agree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat disagree (4)
- ○ Strongly disagree (5)

Q16 My co-teacher and I have a similar work ethic.

- ○ Strongly agree (1)
- ○ Somewhat agree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat disagree (4)
- ○ Strongly disagree (5)

Instrument 2

Focus Group Questions

Prevailing Personality Type

General Education Teacher_____

Special Education Teacher_____

1. Were you Surprised by your personality type?

2. Do you think it accurately describes your personality?

3. Do you see any similarities in your personality types?

4. Do you see any differences in your personality types?

5. Do you think this exercise will strengthen your co-teaching relationship?

Instrument 3

Co-Teaching Observation Checklist

General Education Teacher _____ Grade Level _____
Date_____

Special Education Teacher _____ Subject _____

Instruction			
	observed	Not observed	comments
1.Classroom Observation (circle one): virtual by Zoom or in a physical classroom			
2.Teachers talk to one another.			
3. Teachers interact and work together.			
4. Evidence teachers have a plan together.			
5.Research Based Instruction strategies present			
6. Lesson is differentiated.			
7. Both teachers deliver instruction.			
8. Both teachers support all students.			
9. Lessons are presented in a variety of ways.			
10. Students have multiple opportunities to respond.			
11. Evidence presents classroom routines are taught and practiced.			
12 Evidence presents classroom expectations are taught and practiced.			
13 There is evidence of instructional planning.			
14 Both teachers actively supervise students.			

15.Positive Specific praise is 4 to 1			
16.Feedback is given to students from both teachers.			
17. Student Engagement over 80%			
Comments:			

Instrument 4

Appendix

Interview Questions: Co-teaching

1. Are you a Special Education Teacher or General Education Teacher? What grade/ subject area do you teach?
2. What grade and subject area do you teach?
3. How long have you co-taught a class?
4. How long have you taught with your current co-teaching partner?
5. Do you enjoy working as a teaching team in the classroom? Why or why not?
6. How would you describe your teaching style and your co-teachers style? Are they different or similar?
7. What were the results of your personality assessment?
8. Did the personality type assessment reveal anything surprising to you?
9. Do you think the type indicator is an accurate assessment of your personality type?
10. Do you believe your co-teacher has a similar personality to yours?
11. Do you plan with your co-teacher? How often? How do you meet? Virtually? In-person?
12. How do you view you and your co-teachers approach to classroom management?
13. Does the working relationship with your co-teacher improve or increase your job satisfaction?
14. When you review data, do you notice a student's making progress in the co-teaching classroom? What factors do contribute to their success or lack of progress?

Instrument 5

Post Survey Co-Teaching

Q2 Your role in the co-teaching partnership is

- ○ General Education Teacher (1)
- ○ Special Education Teacher (2)

Q3 How long have you worked with your co-teaching partner?

- ○ less than a year (1)
- ○ 1 to 2 years (2)
- ○ 3 to 5 years (3)
- ○ 6 to 10 years (4)
- ○ over 10 years (5)

Q4 After discussing personality types, my co-teaching partner is aware of my teaching strengths.

- ○ Strongly agree (1)
- ○ Somewhat agree 2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat disagree (4)
- ○ Strongly disagree (5)

Q5 After discussing personality types, my co-teaching partner is aware of my teaching strengths.

- ○ Strongly agree (1)
- ○ Somewhat agree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat disagree (4)
- ○ Strongly disagree (5)

Q6 After discussing personality types, I know all of my co-teaching partner's communication preferences (text, e-mail, phone call, face to face meeting)

- ○ Strongly agree (1)
- ○ Somewhat agree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat disagree (4)
- ○ Strongly disagree (5)

Q7 I believe my co-teacher and I have compatible personality types.

- ○ Strongly agree (1)
- ○ Somewhat agree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat disagree (4)
- ○ Strongly disagree (5)

Q8 My co-teaching partner and I make a good teaching team.
Strongly agree (1)

- Somewhat agree (2)
- Neither agree nor disagree (3)
- Somewhat disagree (4)
- Strongly disagree (5)

Q9 Our team teaching increases student achievement as measured by student data (tests, common assessments, MAP, or EOC).

- Strongly agree (1)
- Somewhat agree (2)
- Neither agree nor disagree (3)
- Somewhat disagree (4)
- Strongly disagree (5)

Q10 My co-teaching partner and I have a similar approach to building relationships with students.

- Strongly agree (1)
- Somewhat agree (2)
- Neither agree nor disagree (3)
- Somewhat disagree (4)
- Strongly disagree (5)

Q11 My co-teaching partner and I have a similar approach regarding classroom management.

- ○ Strongly agree (1)
- ○ Somewhat agree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat disagree (4)
- ○ Strongly disagree (5)

Q12 If needed, I know I can have difficult conversations about classroom instruction or management with my co-teaching partner.

- ○ Strongly agree (1)
- ○ Somewhat agree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat disagree (4)
- ○ Strongly disagree (5)
- ○

Q13 My job satisfaction is increased because I have a good relationship with my co-teaching partner.

- ○ Strongly agree (1)
- ○ Somewhat agree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat disagree (4)
- ○ Strongly disagree (5)

Q14 I enjoy working as a team in the classroom.

- ○ Strongly agree (1)
- ○ Somewhat agree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat disagree (4)
- ○ Strongly disagree (5)

Q15 My co-teaching partner and I have built a trusting relationship.

- ○ Strongly agree (1)
- ○ Somewhat agree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat disagree (4)

Q16 My co-teaching partner and I can anticipate each other's actions in the classroom.

- ○ Strongly agree (1)
- ○ Somewhat agree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat disagree (4)
- ○ Strongly disagree (5)

Q17 My co-teacher and I have a similar work ethic.

- ○ Strongly agree (1)
- ○ Somewhat agree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat disagree (4)
- ○ Strongly disagree (5)

Q18 After taking the personality assessment, I consider personality similarities and differences when working with my co-teaching partner.

- ○ Strongly agree (1)
- ○ Somewhat agree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat disagree 4)
- ○ Strongly disagree (5)

19 After taking the personality assessment, my co-teaching partner and I talked about the personality assessment, and we noticed our personality categories are similar.

- ○ Strongly agree (1)
- ○ Somewhat agree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat disagree (4)
- ○ Strongly disagree (5)

Q20 My co-teacher and I find it difficult to find times to plan together during the week.

- ○ Strongly agree (1)
- ○ Somewhat agree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat disagree (4)
- ○ Strongly disagree (5)

Q21 I have attended professional development in the area of co-teaching:

- ○ I have attended several trainings with my current co-teaching partner. (1)
- ○ I have attended one training with my current co-teaching partner. (2)
- ○ I have attended training alone without my co-teaching partner (3)
- ○ I have attended training with a previous co-teaching partner. (4)
- ○ I have not received training on co-teaching. (5)