



January 2023

Faculty Experiences Of Implementing Co-Teaching Strategies

Krystie Lynn Seese

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FACULTY EXPERIENCES OF IMPLEMENTING CO-TEACHING STRATEGIES

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A Dissertation

Submitted to the Graduate Faculty

of the

University of North Dakota

in partial fulfillment for the requirements

for the Degree of

Doctor of Education

Grand Forks, North Dakota

May
2023

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Krystie Lynn Seese
04/18/2023

ACKNOWLEDGEMENTS

First, I would like to acknowledge and thank my committee chair and advisor, Dr. Shannon Grave. Thank you for being so supportive and encouraging during this journey! Additionally, I would also like to thank my valued committee members, Drs. Patti Mahar, Michelle Griffin, and Deborah Worley. All these women have been a pleasure to work with and learn from.

I also want to acknowledge and thank all the educators in my life from preschool onward. They have all had a profound impact on me and have helped shape me into the educator I am today. I hope I have made them proud!

Lastly, I would like to thank my family and friends for their continued support in my educational endeavors. Thank you, especially to my mom, for instilling a love of learning from an early age and showing me that it is never too late to learn!

This work is dedicated to my mom, Lynn, who has always encouraged me to go further than I ever thought possible and showed me that education is the key to success. I love you and appreciate all you have done to make me the person I am today. I am forever grateful.

ABSTRACT

Co-teaching is defined as two or more certified teachers working together to meet the needs of the diverse learners in their classroom, especially students with disabilities. Co-teaching is a widely implemented method used in public schools to educate children with and without disabilities in the general education setting to comply with state and national legislation requirements. There are six commonly used co-teaching strategies and approaches: one teach, one observe; one teach, one assist; parallel teaching; station teaching; alternative teaching; and team teaching. The research questions asked and answered were: What approach is most widely used and most effective at the secondary level? And what are the teacher's perception of students with disabilities in the general education and co-teaching setting? Data was collected via surveys from high school and middle school general and special education teachers in the researcher's school district. Data found that one teach, one assist was reported as the most used strategy among secondary teachers in the researcher's school district. Additionally, teacher perspectives on students with disabilities in their classrooms were examined with primarily positive perceptions. A professional development seminar was created, and handouts were made to disseminate to staff outlining the findings and the most effective co-teaching strategies. A plan for coaching, with resources, was created for continued teacher support and education.

Keywords: co-teaching, special education, co-teaching strategies, pre-professional teacher training, academic achievement, coaching, professional development, shared expectations, teamwork, student success, collaboration.

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List of Terms and Definitions

Throughout this research paper, there are terms and definitions fundamental to the special education process.

IEP- An IEP is an Individualized Education Plan. Each student that qualifies for specialized instruction through special education services has an IEP. This IEP contains individual goals and objectives in all academic areas and related services (Speech, Occupational Therapy, Physical Therapy, Counseling, Transition, etc.). The IEP also contains a list of modifications and accommodations for the general education setting and a service grid that reflects service hours and the location of services given to the student. An IEP is considered a legal document that must be followed with fidelity. There are government-mandated laws that govern IEP's, student and parent rights, and restraints and seclusions. These laws, such as No Child Left Behind, Individuals with Disabilities Education Act (IDEA), and Free and Appropriate Public Education (FAPE) require schools to provide a free and appropriate and adequate education for students with disabilities (IDEA, 2020).

Modification- A modification is when a change is made to the curriculum, content, presentation, environment, and/or performance criteria. Some examples of a modification are modified tests/assessments (content is changed to meet the needs of the learner- i.e., lower reading level, fewer options for multiple choice); Pass/Fail options for courses; Simplifying Assignment; Adapted Paper; Modified Texts; and Behavior Chart. Modifications are made for students who struggle to comprehend general education content (University of Washington, 2022).

Accommodation- An accommodation is when something is altered to meet the needs of a learner. This accommodation allows the student to access the content and curriculum in an appropriate way. Some examples of accommodations are Use of a Calculator; Spell Check; Visual Schedule; Provide Models; Text-to-Speech; Check Work in Progress; Adaptive Workspaces; Alternate Setting; Break Between Tasks; Oral Testing and Manipulatives. An accommodation allows students with disabilities the opportunity to pursue the general education curriculum without changing what is being taught (University of Washington, 2022).

Push-In Services- Push-In services are the special education hours that are delivered by a certified special education teacher inside the general education setting. This can represent co-teaching services, assistance in the classroom, or small group settings in the back of the room. A push in provider will bring the instruction and materials to the student (Morin, 2022).

Pull-Out Services. Pull-Out services are the special education hours delivered by a certified special education teacher outside of the general education setting. This is typically done in a separate setting such as a resource room (Morin, 2022). Here, teachers will work on specific goals and objectives based on the student's IEP.

PPT- A PPT is the Planning and Placement Team. This is a term local to the author's region that refers to an IEP Meeting. This team meets at least once a year to conduct an annual review. At this annual review, a new IEP is developed, and the progress of the student is reviewed. The PPT makes all decisions with the input of each member. After a student turns 14, the student is invited to their PPT meetings and have a seat at the table to participate in educational decisions on their own behalf. The PPT

determines physical placement for students to receive their education either in a general education classroom, co-taught classroom, resource room, or a self-contained classroom. IDEA (2020) requires these meetings to occur at least once a year to review a student's programming and progress.

LRE- The Least Restrictive Environment (LRE) must be considered for each student.

Students should spend as much time in the general education classroom with peers without disabilities as much as possible and appropriate. For example, the most restrictive environment would be a student among other students with disabilities in the resource room classroom. The least restrictive environment is a student spending a majority of their day in the general education classroom with all students (IDEA, 2020).

IDEA- The Individuals with Disabilities Education Act was enacted in 1975. This act governs how states and public agencies must provide early intervention services, special education services and related services to children who have specialized education needs due to a disability (IDEA, 2020).

FAPE- Section 504 requires schools to provide every child with a Free Appropriate Public Education regardless of their disability who lives within the school district's jurisdiction regardless of the severity of their disability (U.S. Department of Education, 2010). Each school district is required to provide high quality education to all students. If a district is unable to provide this education, they must outplace a student to an appropriate placement where the school district bears the cost (IDEA, 2020).

Middle School- In this study, middle school refers to a school for students in grades 6-8.

High School- In this study, high school refers to a school for students in grades 9-12.

Block Scheduling- Block Scheduling is a more common scheduling approach for the upper grades, typically high school. It provides a larger block of time for each class to meet during the school day. This method replaces the more traditional six or seven 40–50-minute class sessions with longer class periods that meet fewer times each week (Salas, 2022). Students will attend less classes per day, however, the class lengths are often doubled in time.

Triennial Review- A triennial review is a re-evaluation that occurs every three years and is required by IDEA (IDEA, 2020). At this meeting the PPT team determines if a student continues to qualify for special education services. A student’s diagnosis, classification, and services are also reviewed at this meeting.

Certified Teacher- A certified teacher is one who has earned at least a 4-year undergraduate degree or graduate degree in the area of education. These teachers have passed state standardized testing, completed student teaching, and applied for certification and licensure through their state education department.

INTRODUCTION

With an increasing frequency in which the number of students who have disabilities are educated alongside their peers without disabilities; schools have transitioned much of the educational settings for those students to the general education classroom. This shift has affected almost every aspect of modern education (Cook et al., 2007). Placing students into general education classes where teachers are expected to teach the core curriculum and ensure all students have learned the content has resulted in schools turning to more supportive instructional strategies such as co-teaching (Vaugh & Bos, 2015). With a shift in how teachers educate students in the general education setting, there must be qualified and educated teachers implementing proven strategies to benefit the wide variety of needs in a single classroom.

Teaching students with disabilities in the general education setting allows these students to be educated alongside their peers. Schools can now meet these students' needs outside of the resource room or self-contained classroom where they would otherwise be surrounded only by peers with disabilities. The general goal of special education is to educate a student appropriately in the least restrictive environment alongside their peers without a disability. The National Center for Education Statistics (2022) found that ninety-five percent of school-age students served under IDEA in the fall of 2020 were enrolled in regular neighborhood schools. Three percent of students served under IDEA were enrolled in separate schools (public or private) specifically for students with disabilities. Two percent

were placed in regular private schools and the remaining less than one percent were homebound, in hospitals, separate residential facilities, or in correctional facilities (The National Center for Education Statistics, 2022). Because most students with disabilities are placed in the regular, public-school setting with their peers, schools must develop a plan on how to meet the individual goals and objectives for each student in the best and most efficient manner (About IDEA, 2022).

As students with disabilities are increasingly placed in the general education classroom, teachers must provide effective instructional practices to support all student needs in order to achieve positive academic achievement results (McLeskey et al., 2011). In addition to these academic findings, Murley and colleagues (2014), found that there were fewer disruptions to the regular classroom routines and student behavior. Together, these factors create and contribute to a positive classroom environment that supports learning for many students. Co-teaching can provide an efficient and effective way to meet these students' needs in order to ensure success for all students.

A study by Walsh (2012) found that co-teaching methods and approaches have demonstrated a positive effect on student achievement. These methods, when used with fidelity, can help teachers meet their goals for student progress. The goal of co-teaching is to ensure all students' academic needs are met in the general education setting. In another study conducted, when a co-teaching model was put into place, a statistically significant positive impact was found in reading and math scores for both students with special education needs and also those with free or reduced lunch (Murley et al., 2014). Properly implemented co-teaching practices can address the needs of the most at-risk students in the school, not just those with a disability.

Co-teaching (specifically one special education teacher and one general education teacher) is defined as, “two or more professionals delivering substantive instruction to a diverse, or blended, group of students in a single physical space” (Cook & Friend, 1995, p. 5). Co-teaching is also represented as the act of two or more certified teachers working together “...for the outcome of achieving what none could have done alone” (Wenzlaff et al., 2002, p.11). Certified teachers, those who received a degree in education and certification through the state, work together to provide meaningful instruction differentiated for the range of different academic levels in their classroom. Differentiated levels could mean addressing both students with an Individualized Education Plan or those who are ready for higher-level content.

When two teachers with diverse backgrounds and experience in education work together to solve a problem or teach a difficult concept, they are much more likely to solve that problem and instruct their students effectively (Murdock, 2015). Co-teaching relies heavily on positive teacher relationships and rapport to best support student learning cohesively. Most importantly, co-teaching allows access to the general education curriculum which has been mandated as a requirement under legislation, specifically, the least restrictive environment for nearly all students (Friend & Barron, 2016). This requirement ensures that each student receives an appropriate education for their individual needs in the general education setting. Co-teaching serves all students regardless of their disability status. What is best for one can be beneficial for all.

ARTIFACT I

DESCRIPTION OF THE PROBLEM OF PRACTICE

Overview of the Problem

Many teachers enter co-teaching classrooms with little to no formal training or knowledge of effective co-teaching approaches. General education teachers report that they feel inadequately prepared to instruct students with disabilities, most likely due to insufficient coursework and experience in their pre-service education (Rosenzweig, 2009). The lack of knowledge surrounding co-teaching is a barrier in the development of co-teaching skills that affects teacher education (Sirkko et al., 2018). As more students with disabilities are placed in the general education setting, general education teachers must have knowledge on the requirements of IDEA and ensure they are in compliance with students' legal rights to ensure they are not intentionally or unintentionally violating their rights (Colson & Smothers, 2018). Without requisite training, teachers are entering co-teaching without the knowledge (both legal and academic), expectations, and experience it requires to be successful.

Faraclas (2018) postulates that regular and special education teachers are generally unprepared for the role of co-teaching, regardless of the popularity in which it is implemented in public schools. Just because there is a co-taught classroom, it does not ensure that the desired effects will be achieved. Regular and special education teachers should receive training in co-teaching best practices imperative for education and co-teaching (Faraclas, 2018). Researchers have noted the importance of allowing teacher

candidates to have opportunities to practice co-teaching strategies during their educational training (Sundqvist et al., 2021). With this practice, student teachers are expanding their perceptions of collaboration and a feeling of being better prepared for collaboration when working in the field of education (Hamilton-Jones & Vail, 2013). Both school districts and teacher preparation programs must ensure that all teachers are aware of the laws in place and are able to implement the law with fidelity to protect their students (Colson & Smothers, 2018). The benefits of proper teacher education programs that involve co-teaching strategies and practice, help better prepare future teachers for a collaborative working environment and compliance with existing legislation.

There are six primary co-teaching strategies and approaches; however, the strategies are not all widely used or are not used effectively in many schools (Hanover, 2012). Additionally, teachers may have differing feelings and perceptions around having students with disabilities in their general education classroom. They may feel inadequately trained to meet the needs of learners with disabilities or have biases towards the students who require more instruction and assistance.

Peery (2017) notes that about 20% of any classroom in America contains students with a wide variety of disabilities ranging from learning disabilities to English Language Learners. Urban locations have even higher percentages of students with disabilities in American classrooms (NCLD, 2020). With numbers this high, co-teaching is a strong mitigating strategy to increase learning outcomes for all students in diverse types of schools and settings. There has been an increase in rigorous education standards, universal accessibility, and increased teacher accountability for student achievement. Therefore, co-teaching has become a widely implemented option for delivery of special education services

for students with disabilities (Harter & Jacobi, 2018). Co-teaching is a method that can address a variety of services and needs in one educational setting.

With 6.7 million students in U.S. with documented disabilities, many of them spend most of their day within the general education setting with teachers who may not be specifically trained to teach them (Mitchell, 2019). If teachers are underprepared to instruct these students, the result could lead to students not being identified for special education support and they may fall behind due to their teacher's lack of skill in addressing their unique needs. A survey conducted by the National Center for Learning Disabilities (2019) highlighted that many teachers reported that they were not required to take coursework on working with students with disabilities, or they felt the course still left them feeling unprepared to instruct them. Students with disabilities require specific instructional strategies researched and relevant to their individual needs as a learner.

Providing an appropriate education for these students is imperative. Ashby (2012) argues that the strategies used in education should be based on a "strengths-and needs-based approach to determining supports and useful teaching strategies" (p.96). A needs-based approach model follows the idea that students should receive appropriate services for their needs, not just what they would qualify for (Saskatchewan Ministry of Education, 2015). The approach considers that each student has a different need, and those needs may shift over time. Co-teaching is one strategy that can be used to address the needs of many students at once and change with student needs. It has flexible models that allow teacher choice in its implementation. With co-teaching, teachers can identify and remedy the unique needs of each learner in their classroom. Using the needs-based approach, teachers can target specific skills and areas that students require in order to succeed in the general

education setting. This goes beyond simply providing these students with the services for which they qualify. Rather, educating the whole child and meeting their needs will ensure a path to student success.

Approaches to Co-Teaching

There are six approaches to co-teaching used in classrooms across the country: one teach, one observe; one teach, one assist; parallel teaching; station teaching; alternative teaching; and team teaching (Bacharach et al., 2008). These six approaches have remained consistent for years.

One Teach, One Observe.

One teach, one observe occurs when one teacher is observing and gathering data while the other instructs the class as normal (SERC, 2017). This approach allows teachers to analyze data and information together. However, the instruction is primarily delivered by the main content area teacher in the classroom, typically, the general education teacher. With this model, the special education teacher is not providing instruction. This model would look like one teacher in the front of the classroom delivering all the instruction independently while the other teacher is in the back or side of the classroom making observations of students, environment, or other factors.

One Teach, One Assist.

One teach, one assist allows one teacher to be the lesson's primary educator while the other circulates through the room aiding students as needed (SERC, 2017). This allows students who need extra support to get help in the moment instead of waiting for help later. One teach, one assist does not require an elevated level of planning as the content area teacher provides the bulk of the instruction to the entire class. This model consists of one

teacher (typically the general education teacher) at the front of the classroom delivering the bulk of the instruction while the other teacher is walking around the room assisting both students and the teacher as needed.

Parallel Teaching.

Parallel teaching is when teachers divide the class into two groups, and both teachers teach the same content simultaneously (SERC, 2017). This creates smaller class sizes and allows teachers greater ability to provide individualized instruction and modify the pace of the lesson. Teachers can split the class into two groups based on individual student levels to move at a pace that is most appropriate for the group. This model consists of two teachers each teaching the same content to one-half of the class within the same room at the same time. Each teacher is responsible for their side of the classroom independently.

Station Teaching.

Station teaching occurs when teachers divide both content and students. Each teacher runs a station and repeats the lesson to the next group (SERC, 2017). This allows smaller groups, a differentiated pace, and individualized instruction for all students in the classroom. This model demonstrates separate stations set up within the same classroom. Each teacher sits at a table or station to meet students in small groups.

Alternative Teaching.

Alternative teaching allows one teacher to take responsibility for the large group while the other teacher works with a smaller group (SERC, 2017). Students can work with the second teacher in a small group or transition to the larger group. This strategy provides quick intervention to students in a smaller setting within the general education setting. This

model demonstrates two teachers working with separate groups of students in the same classroom, one in the front of the room and one in the back.

Team Teaching.

The last approach to co-teaching is team teaching. This strategy allows both teachers to deliver the same instruction at the same time side by side. SERC (2017) reports this is one of the more common co-teaching approaches. Both teachers are responsible for delivering the main content instruction together at the front of the classroom for the benefit of all students. Special education teachers can modify the instruction, reinforce ideas, and clarify instructions during this type of co-teaching strategy. Team teaching demonstrates true parity among teachers. Both teachers are at the front of the classroom teaching the lesson together, with each teacher leading 50% of the instruction. It should be difficult to discern which teacher is the general educator and which is the special educator.

All these models require planning and collaboration for the strategies to succeed and be implemented with fidelity. Scruggs and colleagues (2007) acknowledge that there is not a specific amount of time that is to be spent on any one co-teaching model, but the overall assumption is that students will benefit from any of the models that emphasize the strengths and expertise of both teachers. Each teacher brings a unique set of skills to the classroom that can be highlighted to best serve the needs of all students in the classroom. This teamwork and collaboration should be established early in the co-teaching relationship.

Table 1
Benefits and Challenges of Each Co-Teaching Strategy

Co-Teaching Strategy	Benefits	Challenges
One Teach, One Observe	<ul style="list-style-type: none"> Observing can provide useful data for 	<ul style="list-style-type: none"> Only one teacher is giving instruction.

One Teach, One Assist	<p>instruction, interventions, and groupings for the future.</p> <ul style="list-style-type: none"> • Full teacher attention can be given to either teaching or observing. • This method provides increased classroom management. • Individual support for students is easier to give in the moment. • This allows newer teachers to observe seasoned teachers. 	<ul style="list-style-type: none"> • One teacher is being under-utilized in the classroom.
Parallel Teaching	<ul style="list-style-type: none"> • This method creates smaller groups to give more attention and support to struggling students. • Easier classroom management split among teachers. • There is an active instructional role for both teachers with split responsibilities. 	<ul style="list-style-type: none"> • Students may see one teacher as the authority figure more than the other. • This model requires intentional planning to ensure the assisting teacher is being used most effectively. • One teacher may feel like an assistant. • Teachers need to time lessons to ensure they end simultaneously. • With two lessons at once, it can be noisy and difficult for students to focus. • Both teachers need to be strong and confident in the content and curriculum. • Students may feel their group is moving slower than the other and harm self-esteem being consistently put in the slower of the two groups.
Station Teaching	<ul style="list-style-type: none"> • This method uses each teacher's individual strengths. • Both teachers are actively teaching and instructing. • Teachers can easily differentiate each lesson for the group's needs. 	<ul style="list-style-type: none"> • Preparing materials and planning takes time. • Building stations into the regular classroom routine can take time to incorporate. • This model can be noisy which can make it difficult for some students to focus.

Alternative Teaching	<ul style="list-style-type: none"> • Students who require extra support are seen in a small group setting. • Both teachers are actively teaching. • There are lower student-teacher ratios. 	<ul style="list-style-type: none"> • Dual planning is required and takes additional time. • Data collection systems must be clear and used to maximize small group instruction. • Students may feel self-conscious if they are always pulled into a small group.
Team Teaching	<ul style="list-style-type: none"> • Students are exposed to different teaching styles and perspectives. • The method provides multiple modalities of curriculum and content. • Students see a collaborative relationship modeled for them. • Teachers have more opportunities to acknowledge teachable moments. 	<ul style="list-style-type: none"> • Teachers' styles and personalities need to be complementary for true parity and collaboration to occur. • Extensive planning and collaboration for both teachers are required for this model to be effective. • Additional time is needed to build trust and create a relationship where both teachers feel valued.

(Continental Press, 2022)

Challenges in Co-teaching

With any teaching model, co-teaching can present some challenges. Co-teaching requires expert knowledge of the co-teaching models, the co-teachers must have skills in collaboration and the ability to implement the research-based co-teaching models. This is done through effective co-planning, co-instructing, and co-assessing (Murawski & Lochner, 2010). These aspects must all be used and implemented effectively for co-teaching to reach effective levels.

Teachers must have time to co-plan together to create effective lessons that meet the needs of all learners in the classroom. Co-planning is the initial step that leads to effective

co-teaching. It is imperative to ensure co-teachers define their roles and the method of co-teaching instruction that will best meet the lesson goals (Murawski & Lochner, 2010). Additionally, co-teachers must agree and follow their agreed-upon role. Setting ground rules and expectations at the beginning of a co-teaching relationship can help guide teachers to create a mutual understanding of expectations. See Appendix B for a co-teaching rules and responsibilities worksheet to assist in setting expectations.

Similarly, co-assessing is an integral part of the co-teaching process (Murawski & Lochner, 2010). Assessing student progress and areas of weaknesses together allows teachers to decide upon groupings, lesson trajectories, and modifications needed. General education teachers are considered the “content specialist” in making the instructional decisions required to move through the curriculum at an appropriate pace (Mastropieri et al., 2005). Special education teachers often rely on the general education teachers’ knowledge and familiarity with the curriculum to help drive instruction forward.

Special education teachers will collect relevant Individualized Education Plan (IEP) data and create upcoming and relevant goals and objectives for students with an IEP. Special education teachers have strength in presenting content in accessible ways, adapting curriculum, and addressing behavior and emotional concerns (Rufo & Causton, 2022). They have received extensive training in teacher preparation programs in proper techniques and strategies to modify content in an accessible way for students of varying disabilities. Teamwork and collaboration are essential for a successful co-teaching relationship and in order to work together to meet each student’s individual needs.

There are some particularly important prerequisites for co-teaching. These prerequisites are parity, school climate, and personal characteristics (Bresnahan & Pedersen,

2009). Teachers involved in a co-teaching relationship must have mutual respect, specific mutual goals, shared accountability for outcomes, and shared resources. The school climate must be positive for teachers to feel comfortable sharing ideas, resources, and experimenting with new models. They must share a common language about instructional techniques and methods (Bresnahan & Pedersen, 2009). Lastly, personal characteristics such as working well with others, classroom management styles, and providing a safe learning environment are essential in building a successful co-teaching relationship. Without these prerequisite traits, there is a higher probability that co-teaching will fail.

Purpose of the Study

This study sought to determine the most common and successful co-teaching model used in a high school and middle school setting, as reported by certified teachers in the researcher's school district. Additionally, teacher perceptions of those students with disabilities in their classrooms were evaluated and analyzed. The information gathered helped formulate the creation of an hour-long professional development for the faculty and staff at the middle and high school level, an educational handout, and a plan for continued coaching.

This study is intended to help new and existing co-teachers improve their skills and learn new techniques to implement in their co-teaching classroom. With the professional development and plan for coaching, teachers will have guidance and a better understanding of the skills required to make a co-teaching classroom as effective as possible. The time and resources of a special education teacher are limited and valuable. The strategy used should reflect the best use of time for these educators.

Research Questions

This study addresses two research questions to better understand and evaluate co-teaching approaches and teacher perceptions in the researcher's school district. These questions guided the study and survey questions.

1. What is the most common co-teaching strategy used in a middle or high school co-taught classroom?
2. What are the teachers' perceptions on educating students with a disability in their classrooms?

The data and conclusions of this study may be beneficial to other K-12 educators, administrators, and higher education institutions in implementing co-teaching arrangements and preparing current and future educators.

Researcher's Background

I have worked in public education for the past ten years as a special education teacher. I have instructed many students of varying disabilities in grades 2-12 in reading, writing, and mathematics. I spent most of my years as a special education teacher in a co-teaching partnership at the middle and high school levels and in the resource room.

I have been a co-teacher across elementary, middle, and high school settings. In my experience, I have has seen both successful and unsuccessful co-teaching classrooms. There has been a lack of awareness of the six co-teaching strategies from my perspective. I have also seen both positive and negative perceptions of students with disabilities from general education teachers. My perspective and potential bias are that I feel co-teaching can be extremely beneficial when implemented with fidelity. I believes strongly that co-teaching benefits all students in the classroom both with and without a disability.

The research was conducted in my current district of employment. Approval from the superintendent and building administrators were received prior to obtaining IRB approval and surveying participants.

Processes

It is important to note that this survey was conducted within one school district across two schools. The research done and data collected reflects the responses collected from these two schools. An assumption made is that all participants responded honestly when answering the survey questions. The notice of consent reminded participants that all responses were anonymous. The survey was anonymous and collected data regarding co-teaching perceptions, knowledge, and experiences. No personal information about teachers or students was collected and data stored on a password-protected computer.

Potential subjects were able to self-identify based on response to an email asking for participation. No compensation was given. The district superintendent was notified of intent to collect data and gave permission. He reviewed the survey questions and drafted emails to staff, both of which were approved. The participants are all adults, and no students or personal information was used or collected in the survey. Consent was implied by the completion of the survey. Participants were informed that the survey is voluntary, and they can end at any time.

Participants were chosen based on the researcher's school district. All participants were limited to those that teach or have taught at the middle or high school level, those that have been in a co-teaching classroom, and those who are certified teachers. Participants were excluded from the survey if they did not meet the criteria.

Literature Review

Extensive literature exists surrounding co-teaching and its' benefits, challenges, and approaches. This information provides an important background and foundation to this study. Co-teaching has become a popular approach to educating students in the general education setting. The National Center for Education Statistics (2019) reports that 14% of the public school-aged population qualifies for receiving special education services. Of these students, 66% of them spend 80% or more of their school day receiving the bulk of their instruction in the general education setting (The National Center for Education Statistics, 2022). Therefore, co-teaching allows these students to receive push-in special education services (service by a special education teacher within the general education setting), with their peers.

Findings from multiple researchers support that co-teaching is one of several options that may serve students with disabilities appropriately. Schools are able to provide instruction that meets the needs of these learners throughout the day with their peers. School leaders must determine when, why, and how co-teaching might work and for whom it might be best (Peery, 2017). This can be done by examining each student's IEP and determining co-teaching needs through a needs assessment. Once this has been completed, administrators and special education teachers can work together to create a schedule that allows teachers to service students according to their IEP goals and objectives. Careful consideration should be given to pairing co-teachers according to experience, personality, and scheduling matches. All these activities must be planned in advance. Effective co-teaching should be proactive, not reactive (Stanford-Taylor, 2020). Implementing strategies with fidelity at the start can increase student learning immediately with set routines and expectations from the first day.

Co-teaching reaches further than just one general education and one special education teacher. It can look quite different depending on the situation and mix of teachers.

Co-teaching can involve the following:

- a. General education teachers and special education teachers;
- b. Paraprofessionals and a specialist or general education teacher;
- c. Two general education teachers;
- d. Speech language pathologists and a special or general education teacher;
- e. Social worker and a special or general education teacher;
- f. Other support staff (including volunteers) and special or general education teachers, or;
- g. Selected teachers (music, art, language, computers, etc.) and a special or general education teacher (Kumar & Singh, 2021).

Co-teaching may look different depending on the grade and age level of the students.

For example, at the elementary level, the special education teacher can *push-in* at various times during the day (i.e., reading, writing, or math lessons) to provide support. Push-in services occur in the general education classroom where the special education teacher provides special education services to students with an IEP either by pulling a small group in the back, co-teaching, or providing assistance as needed on the general education curriculum. At the middle school level, special education teachers can co-teach in mathematics or language arts classes to support students with disabilities. In this instance, planning periods are easier to share due to the team model used. In high school, co-teaching is more difficult to accommodate and to plan due to block schedules and the limited number of classes a special education teacher can teach in one day (Kumar & Singh, 2021).

Co-teaching includes many aspects, but it does not include:

- a. Implementing the same lessons, the same way one teaches without a co-teacher;
- b. Having two certified teachers provide instruction to a homogenous class, or;
- c. Grouping students with disabilities to work solely with the special education teacher in the back of the class or removing them to receive instruction in their own separate classroom (Bresnahan & Pedersen, 2009).

It is important to keep these aspects in mind to avoid unintentionally implementing co-teaching incorrectly.

Benefits

Ensuring all students are educated together allows for positive social interactions for all students. Students with disabilities can interact and practice social skills with their peers while at the same time, their peers can learn empathy, inclusion, and acceptance of all people regardless of their differences (Christensen, 2021). Each day students are exposed to seeing two adults work together collaboratively. The co-teachers demonstrate and model teamwork, encouragement, support, and politeness through daily interactions (Christensen, 2021).

In a 2019 study conducted by Rabin, co-teachers used dialogue to model caring. In the study, 39% of teachers noticed that the power of their dialogue and modeling positively affected their students. Rabin postulates that dialogue is relevant to cultivate meaningful relationships which matters when we consider another purpose of education, which is to create citizens who care. Dialogue modeling occurs when a set of co-teachers is modeling care through dialogue. This dialogue modeling emerges when one co-teacher intentionally models instances, such as interrupting, sharing ideas and perspectives, and hearing multiple

connections to prior knowledge (Rabin, 2019). This method naturally teaches students necessary life skills that go well beyond the classroom and can help develop students' social and academic skills.

Strong academic and social-emotional learning for students with disabilities who are included within the general education program have higher test scores on standardized tests in reading and math, have fewer absences from school, have fewer referrals for disruptive behavior, and have better outcomes after high school in employment and independent living (Wagner et. al., 2006). These benefits positively affect the school environment and allow for an increase in teaching and learning time. Co-teaching provides additional opportunities for support far beyond academic instruction. With two teachers present, teachers can engage and connect with more students and address behavioral disruptions before they escalate.

Co-teaching allows for classrooms to have mixed ability grouping. Research conducted by Hattie (2019) found that when students of differing abilities share knowledge and skills, there is an increase in student engagement. This mixed group has been shown to improve the skills needed for interpersonal relationships between students of different abilities and ethnic backgrounds (Hattie, 2019). Students in co-teaching classrooms are surrounded by a variety of students that are different from themselves. This diversity allows students to share experiences and prior knowledge with their mixed-ability classmates. Diverse viewpoints and ethnic backgrounds enhance student learning, acceptance, and foster a positive classroom culture.

When students spend more time in the general education classroom, they are engaged with the general education curriculum, which in turn, is strongly and positively correlated with increased math and reading achievement for those students with disabilities

(Cole et al., 2013). In addition to the benefits for students with disabilities, Cole, and colleagues (2013) noted that students without disabilities also benefited as evidenced by the significant progress in both reading and math when educated in an inclusive setting.

When using co-teaching strategies, it was found that students received greater opportunities to get help from teachers and they were afforded better learning experiences than they would have with just one teacher (Murley et al., 2014). Mastropieri and colleagues (2005) found that all students benefit from the additional instructional support from two teachers in a co-taught classroom. The effects of having two attentive, specialized, and collaborative teachers are evident in the progress and growth of students who participate in a co-teaching environment.

Challenges

With any educational endeavor, there will be some challenges that teachers may encounter. Co-teaching requires a large amount of collaboration and time spent between special education and general education teachers. They must plan effective lessons together that meet the needs of all students in one setting. Co-teachers must also grade and modify lessons and assessments together. It is most helpful for co-teachers to have common planning time to accomplish these important shared tasks. In recent studies conducted by Siegemund and Johansen (2021), the lack of common planning time has been repeatedly confirmed as an area of difficulty in co-teaching. Co-teachers may not have the same planning time built within their schedules.

This can lead to an increase in tension among teachers and cause a general lack of preparation. This lack of preparation can cause one teacher to fall into the authority role, typically the general education teacher (Sims, 2008). When teachers hold the same authority

level within the classroom, they are more likely to build a positive learning environment and get the best out of their students (Sims, 2008). Ideally, students will see each teacher as equal and should not be able to tell who the general education teacher is and who the special education teacher is.

It is not absolute that co-teaching takes more time once established. Initially, at the beginning of the co-teaching relationship, time should be set aside to create an inclusive classroom that will support the teaching groups and structure (Kumar & Singh, 2021). Co-teachers should be equal partners in addressing the needs of the classroom and ensuring students' progress both academically and socially (Knight, 2009). This shared responsibility takes time to plan but is necessary for successful implementation.

Another barrier to successful co-teaching is the lack of co-teaching education and exposure during most teachers' preparation programming. Mitchell (2019) noted that less than 1 in 5 general education teachers feel *very well prepared* to instruct students with disabilities. Additionally, many teachers come to the co-teaching partnership unaware of differing co-teaching strategies, expectations, and outcomes (Mitchell, 2019). With better co-teaching education and ongoing coaching, teachers can be better prepared to enter a co-teaching partnership with the confidence and knowledge to best serve all students.

A choice of co-teaching model allows educators to choose the approach that best fits their classroom's needs. Cassal (2019), advises:

Teaching partners should consider each model's purpose and merit before deciding which to use for a particular lesson or part of a lesson. Considering the benefits of each model should help teachers determine which to use for a given lesson (p.1).

Every model brings a different educational benefit to the lesson. Considering each model's strengths and weaknesses can help determine which will best suit student needs and the topic of instruction. Thus, teachers must communicate and collaborate on the model that best serves the lessons and students in their shared classroom.

In addition to considering the different models and their purpose, it is important to also consider each teacher's strengths as educators. Each teacher brings different expertise, content knowledge, and their knowledge of specific student needs. These partners can bring their personal experiences and specialties together to both successfully instruct and manage the class (Stanford-Taylor, 2020). Consideration should be given to the individual strengths of each teacher in the co-teaching partnership. Teachers can work together to create and implement the strongest lessons based on teacher content knowledge, skill, and strengths. Co-teachers must build a positive teaching relationship to work together seamlessly.

A collaborative approach to teaching requires six components as outlined in *Actualizing a Needs-Based Approach* (Saskatchewan Ministry of Education, 2015):

1. Professional development and training in collaborative processes for all team members;
2. Systems and structures that support integrated service delivery models;
3. Clarity of purpose, roles, and accountability;
4. Commitment and shared expectations;
5. Communication networks that support open, trusting, and respectful dialogue; and,
6. Leadership committed to building and fostering a collaborative culture.

(Saskatchewan Ministry of Education, 2015, p.9)

Collaboration and co-teaching require a high level of skill, time, and commitment for them to be successful. This educational partnership requires an investment in the relationship between teachers to create effective teamwork and improved student outcomes.

Perceptions

Teacher perception and personal feelings about working with students of varying abilities are other important aspects of the success of co-teaching. Cooper (2020) found that general education teachers working with students with disabilities had more negative attitudes than newer teachers in the profession. Cooper explains this may be explained by a lack of inclusion training earlier in their careers. Newer teachers in the teaching profession are showing greater levels of acceptance and understanding regarding students with disabilities. Teachers who have greater length in the profession may not have received the requisite professional development or training in their schooling on how to best educate students with disabilities. This may translate to their perception of students with disabilities in their classrooms.

Professional development and teacher training in special education are valuable to more than ensuring adequate academic progress. When teachers are demonstrating understanding, tolerance, and compassion for those who are different, they are modeling these skills for all students. The social and emotional needs of all students are worthwhile and require attention and training for both newer and tenured educators.

A study determined that the inclusion of children with social, emotional, and behavioral difficulties has frequently been reported as problematic for teachers which is followed by negative teaching attitudes toward these students (Cook et al., 2007). When teachers educate students of varying abilities and disabilities, they must maintain acceptance

and tolerance for all students. General education teacher attitudes might be a contributing factor to the barriers that affect the success of inclusion (Dignath et al., 2022). This barrier can negatively affect students' feelings of comfort and acceptance if they feel their teacher is inconvenienced by them. Successful inclusion requires all teachers and students to be invested in each other's success, regardless of disabilities.

While general education teachers have little to no formal training on how to teach students with disabilities effectively, they tend to develop their own personal belief system based on their classroom experiences in teaching students with disabilities (Dignath et al., 2022). Because of this, special education teachers tend to show more positive beliefs about inclusive education than regular education teachers (Lee et al., 2015). These beliefs can affect the quality of education given to students, which is unfair and places students, especially those with a disability, at a disadvantage.

Cook (2004) found that when compared to children who are typically developing, students with disabilities were overrepresented in teachers' nominations in the categories of concern and rejection and these students were underrepresented in the area of attachment. In this case, teachers were expressing their concern at a much higher rate for students with disabilities than students without a disability. Also, teachers and students with disabilities may lack a connection or attachment compared to their peers who are typically developing (Cook, 2004).

MacFarlane and Woolfson (2013) argue that teacher bias against students with disabilities is real, exists, and the issue needs to be addressed. A positive attitude from the teacher leads to more positive results from the students (MacFarlane & Woolfson, 2013). The National Center for Learning Disabilities (2019) conducted a survey and found that half

the teachers surveyed strongly believed that students with learning and attention issues can meet grade-level expectations. Many of these teachers hold on to misperceptions in general regarding students with learning disabilities, however, many of these teachers expressed interest in learning more about how to best serve these students (Galiatsos et al., 2019).

Positive daily student and teacher interactions are imperative. Cook and colleagues (2007) note that “multiple studies corroborate the finding that teacher attitudes toward specific students correspond with the quantity and quality of interactions and support that teachers provide” (p. 231). When teacher perception and attitudes are more positive toward students, the quality of education increases. Acceptance, compassion, and understanding should be expected from all parties in a school, including teachers, paraprofessionals, and staff.

Knight’s Core Principles

Knight (2009) connects seven core principles of co-teaching and creates a common language to help guide co-teachers to create a dynamic classroom environment. The principles of equity, choice, voice, dialogue, reflection, praxis, and reciprocity are important in ensuring a successful co-teaching relationship. When these principles are followed, co-teachers will have the skills to put into practice for a successful relationship.

Equity.

When teachers’ beliefs are valued and their personal viewpoints are considered, equity is fostered. Here, both teachers can share in the planning process, instruction, and assessing students throughout the educational experience (Knight, 2009). Stein (2019) suggests that both teachers post their names in the room, on assignments, on notes that go

home, and the like. Through these simple actions, students, their families, and colleagues will get a better sense that there are two equally valued teachers in the room.

Choice.

Choice is integral in a co-teaching relationship. Teachers must listen to each other and make instructional decisions together while feeling valued and heard (Knight, 2009). The solution to this is to ensure adequate co-planning time. However, Stein (2019), found that time does not always fit into busy school schedules. She suggests using a Google Doc or other mutually editable tools to plan asynchronously. Stein argues that it is not the quantity, it is the quality of collaborative time that matters.

Voice.

Knight's (2009) third principle is voice. Co-teachers should feel comfortable expressing their personal points of view. Teachers should advocate for the students and mix in the individual teacher's talents throughout the day. Stein (2019) advocates for teachers to find comfortable ways to communicate with the co-teacher and keep that communication open.

Dialogue.

Engaging in conversations and open dialogue where both teachers feel comfortable speaking freely is necessary. Knight (2009) postulates that meeting together is a time to ask questions, add comments, and share ideas with each other. Stein (2019) advises that teachers should find their most effective schedules and methods to have meaningful conversations and make the time to push one another's thinking along. As found in many studies, communication is key to successful co-teaching.

Reflection.

Knight's (2009) fifth principle is reflection. Both teachers need time to connect, adopt, or adapt innovative ideas. They should be free to choose or reject the ideas of another or make suggestions to improve. Through ongoing communication efforts and natural encounters between teachers, it is important to weave in this thoughtful trait of valuing each other's thinking (Stein, 2019). This reinforces the idea that both teachers are equal and ensures that one does not fall into the role of assistant.

Praxis.

Putting theory into practice, or praxis, is important to a co-teaching classroom. The praxis model relies heavily on connecting both theory and practice (Arnold & Mundy, 2020). Knight (2009) found co-teachers who are serious about their partnership should think about how to use each other's ideas in the classroom. Each teacher can bring a new perspective and ideas to the classroom. Teachers should be flexible to try out ideas and share responsibility with each other. It is important to note that one teacher should not always carry the weight of instructional time (Stein, 2019).

Reciprocity.

The last principle that Knight (2009) connected to co-teaching is reciprocity. Reciprocity is where teachers work together for the benefit of the other. He noted that each co-teacher can gain better insights into their own strengths and weaknesses within themselves and their co-teaching partner. Each teacher can begin to balance out their talents and skills. Stein (2019) suggests that clear and consistent communication that values the thinking of others will help everything fall into place.

These seven principles are a great foundation for co-teachers to follow in order to start their co-teaching relationship on the right path. Implementation of these principles may take time; however, the clear benefits are worth the added time and effort for the benefit of the students and the ongoing relationship between co-teachers.

Parity

Parity occurs when each co-teacher contributes equally to the learning environment by participating in planning, instruction, and assessment decisions as well as having an equal leading position in front of students (Conderman & Liberty, 2018). Parity is imperative to create an equitable partnership that increases the success rate for co-teaching. In the middle and high school settings, there is more frequently a lack of parity. This is due in part to the special educator's reduced specialized core curriculum and content knowledge, which results in them assuming an assistive role in the classroom (McKenzie, 2009).

Special education teachers may not have the same specialized education courses and preparation that general education teachers have received, especially in the higher grades. General education teachers are more familiar with the curriculum and content that is to be taught as the year progresses. Because of the lack of specialized general education content training, special educators tend to follow the model one teach, one assist though it may not be the most effective (Mastropieri et al., 2005). In this model, the general education teacher takes the lead role and is the primary instructor of the classroom and educational content. This model does not have a large amount of parity among teachers and therefore, both teachers are not used to the greatest extent possible.

Parity in co-teaching requires a higher level of commitment in order for both licensed teachers to share instructional responsibilities, structure, routines, norms,

procedures, and accountability for the entire group of students in the classroom regardless of their disability status (Cushman, 2004). The outcome of having parity in the classroom is that each member of co-teaching relationship both gives and takes direction so that the desired benefits and outcomes can be achieved (Cushman, 2004).

Stanford-Taylor (2020) detailed some important considerations for determining and delivering effective collaboration:

1. How will teachers communicate with parents?
2. What happens if one teacher prefers to call parents on the phone while the other teacher is more comfortable emailing or texting?
3. How do both teachers handle disruptions in the class?
4. What rises to the level of 'disruption' for each of you?
5. How you will approach collective responsibility helps establish trust and parity.

By addressing these questions prior to beginning co-teaching teachers can effectively plan the best ways to work together to reduce conflict in the future.

Conflict

With any relationship, professional or personal, conflict is a natural part of the pairing. Handling conflict appropriately using conflict-resolution skills is necessary for a strong partnership (Turnbull et al., 2010). Caudill and colleagues (2019) provided some common strategies to help prevent and/or alleviate conflict.

Implementation of a co-teaching contract can help teachers ensure they are consistent in their teaching practice and following agreed-upon terms. This contract should be completed before the start of co-teaching. Some important things to consider are individual expectations, rules and procedures, shared responsibilities, and planning time (Caudill et al.,

2019). These norms foster respectful collaboration and communication because each teacher is clear in their expectations and responsibilities in their role as a co-teacher. These norms and expectations can help avoid conflict in the future and alleviate the confusion of classroom tasks. See Appendix C for a sample co-teaching contract.

It is imperative to address issues that arise right away and assume positive intent for all actions. Letting issues fester and remain unresolved may encourage any problems to escalate. If covert issues are not addressed, they may be made overt and could destroy the positive co-teaching relationship (Villa et al., 2008). Taking the time to solve issues openly and quickly can help mend any cracks in the foundation of the teacher relationship. This open and transparent communication addresses issues as they emerge. Coaching can help address issues quickly and resolve matters professionally with the guidance of a third party.

Carter and colleagues (2009) have noted that there have been many co-teaching pairings between certified teachers that have failed when certain factors were not addressed. The top issues that lead to failed co-teaching relationships occurred when relationship building was neglected, parity was not achieved, and when co-teaching relationships were unsupportive and/or judgmental (Carter et al., 2009). These factors are important in order to avoid conflict and nurture the relationship.

The relationships between co-teachers and colleagues need to be developed for teachers to be successful using their co-teaching strategies. This can be fostered through relationship building, shared expectations, and respect. Reciprocal observations can also be helpful in developing a co-teaching relationship. This strategy allows the teachers to give each other meaningful and valuable feedback and to learn from their teaching (Darling-Hammond & Baratz-Snowden, 2007). By observing a co-teacher in action, teacher pairs can

gain additional insight into their teaching personality, skills, and classroom management.

Using these strategies in addition to other conflict resolution ideas can help alleviate conflict and the barrier it poses to successful co-teaching implementation.

Collaboration

Collaboration is an interactive process in which teaching partners have a shared ownership of the outcomes and decision-making processes. The goals created can be better achieved through this partnership and by working together in an independent and reciprocal manner (Saskatchewan Ministry of Education, 2015). Research on collaboration between certified teachers where one teacher has their own classroom, and they engage in co-planning and co-assessing with another certified teacher has shown an increase in student learning outcomes (Ronfeldt et al., 2015). The reason for co-teaching is to increase student learning. This can be achieved with collaboration between teachers for the best interest of the students. To maximize the full potential of co-teaching, co-teachers can explore different ways for each to assume an equitable and meaningful role during the planning, instructing, and assessing process (Conderman & Liberty, 2018). When these teachers are placed in fulfilling roles and using their expertise, students can benefit from the promising outcomes co-teaching can provide.

A positive and collaborative atmosphere, which is an essential element of co-teaching, can help reduce stress and improve job satisfaction for teachers (Continental Press, 2022). Co-teachers can problem solve together and create a positive lasting relationship that allows teachers to feel appreciated and valued.

Positive and meaningful collaboration requires the following:

1. Take time to foster the co-teaching relationship.

2. Respect each other, even when there are disagreements.
3. Define the co-teaching roles and responsibilities for each teacher.
4. Ensure lessons are planned with the co-teacher, not for the co-teacher.
5. Make regular communication with the co-teacher a priority (Continental Press, 2022).

Implementing these practices regularly and spending time to foster a positive relationship can have lasting positive impacts on happiness and satisfaction.

Common Approaches to Addressing the Problem

Using co-teaching strategies and research to strengthen inclusive education practices is imperative in educating the whole child. The co-teaching model educates students of all abilities to take part in the general education setting to receive their education. This allows students with disabilities to learn in the least restrictive environment, as required by law.

Legislation Addressing Inclusion Practices

Enacted in 1975, The Individuals with Disabilities Act (IDEA) previously known as the Education for All Handicapped Children Act, mandates that a free and appropriate public-school education must be provided for students aged 3-21 (National Center for Education Statistics, 2022). This act governs how states and public agencies must provide early intervention services, special education services, and related services to children who qualify. As of the 2018-2019 school year, (updated and recent data and statistics have not yet been published), more than 7.5 million children with disabilities (this includes infants, toddlers, children, and young adults) have been serviced under this act (About IDEA, 2022). According to IDEA, schools are legally required to ensure that students are receiving the

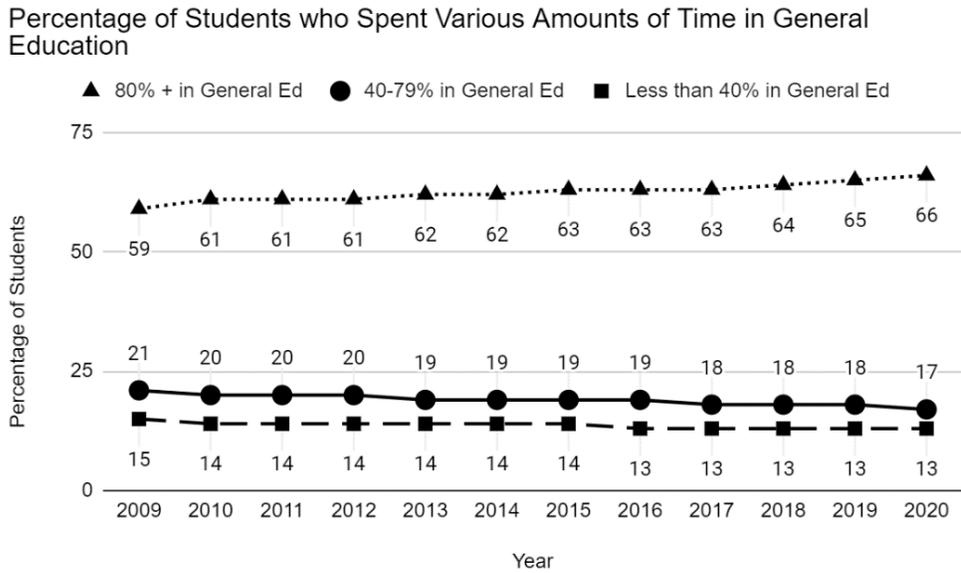
education that is most appropriate for their individual needs to the maximum extent possible.

IDEA (2020) states that:

Children with disabilities, including children in public or private institutions or other care facilities, are educated with children who are not disabled, and that special classes, separate schooling, or other removal of children with disabilities from the regular educational environment occurs only when the nature or severity of the disability is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily (p. 1).

Students must also be educated in a setting that is the least restrictive, meaning they must be educated with peers without disabilities to the greatest extent possible. Educating students in the least restrictive environment, in most cases- the general education classroom, using co-teaching strategies will allow students to be educated together while still receiving their special education services seamlessly. This encourages students to interact with their peers and learn valuable life skills in the general education setting.

Figure 1
Student Time Spent in General Education Setting



(National Center for Education Statistics, 2022)¹

Students served under IDEA who spend 80% or more of their school day in the general education setting have increased from 59% in the Fall of 2009 to 66% in the Fall of 2020. On the other hand, the percentage of students who spent less than 40% of their school day in general education classes has decreased from 15% to 13% (National Center for Education Statistics, 2022). These trends are represented over a 10-year period and demonstrate the increase in students spending more of their day in the general education setting with their peers without a disability than in the resource room or contained classroom setting.

¹ Graph created using data provided by the National Center for Education Statistics. National Center for Education Statistics. (2022). *Students with Disabilities. Condition of Education*. U.S. Department of Education, Institute of Education Sciences.

A student's disability type and its severity may be a predictor of how much time they spend in the regular education setting. If students have a more severe disability requiring more support, they are more likely to be removed from the general education setting for a greater amount of time during each day. If students have a less severe disability and require less support from a special education teacher or other service providers, they are likely to spend more of their day with their peers without disabilities. For example, the National Center for Education Statistics (2022) found that, in the Fall of 2020, students served under IDEA who spent 80% or more of their day in the general education classroom was the highest (88%) for students classified under the disability category of being speech and language impaired. For students like these, they can spend most of the day in the general education setting receiving push-in services rather than being pulled out of their classes. Co-teaching is an effective strategy to allow students to remain with their peers without disabilities for much of their content area learning, which is required by law.

In addition to IDEA legislation, in 2001, the No Child Left Behind Act (NCLB) required that all students, including those with a disability, have access to the general education curriculum taught by highly qualified teachers. This law is still in effect and relevant and requires schools to include students in the general education setting as often as possible to receive education in the core general education curriculum. Additionally, the students must be included in the teacher's accountability toward positive achievement outcomes (Friend et al., 2010). Each student in the classroom must be a part of the teacher's annual goal statement aimed at improved academic achievement.

Students with disabilities should not be excluded from the goals created by the teacher for their classroom. Co-teaching offers a solution that allows students of all abilities

and levels to be educated by qualified teachers in the general education setting and to be included in the classroom's overall goals. The NCLB legislation was created to ensure equal access in education and provide students the most time possible in the least restrictive environment.

During every annual review IEP (Individualized Education Plan) meeting, sometimes locally called a PPT (Planning and Placement Team), an LRE (Least Restrictive Environment) Checklist must be completed by the team. This checklist ensures that the student is being educated in the proper setting and the least restrictive environment.

All students are entitled to a free appropriate public education (FAPE). This allows students to receive special education and related services at no cost to their parents (IDEA, 2020). The U.S. Department of Education (2010) has enacted a law to protect students with disabilities. This law, Section 504, protects students' rights and provides services outside of being classified as a student requiring specialized instruction.

Section 504 of the *Rehabilitation Act of 1973* protects the rights of individuals with disabilities in programs and activities that receive federal financial assistance, including federal funds. Section 504 provides that: "No otherwise qualified individual with a disability in the United States . . . shall, solely by reason of her or his disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance (p.1)

All special education costs and services must be appropriate to meet the student's individual needs. School districts are required to pay for these services at no cost to the families under FAPE. Co-teaching is a way to meet this need in an environment that is best

for many students at their local neighborhood schools. It is imperative that students are given meaningful opportunities to which they are entitled. *About IDEA* (2022) states,

Disability is a natural part of the human experience and in no way diminishes the right of individuals to participate in or contribute to society. Improving educational results for children with disabilities is an essential element of our national policy of ensuring equality of opportunity, full participation, independent living, and economic self-sufficiency for individuals with disabilities (p.1).

Each student identified as a student with a disability requiring specialized instruction has an Individualized Education Plan also known as an IEP. An IEP contains specific, measurable, and appropriate goals and objectives. These goals and objectives are written specifically for each student based on their individual areas of need. These areas are identified through initial or triennial testing (every three years). The testing guides the specific areas of weakness that are to be targeted through direct instruction by a certified special education teacher.

Best practice in education requires that students be included and educated with their peers without disabilities for the most time possible throughout the school day (IDEA, 2020). This supports stronger social and emotional growth and connection with peers. When students with disabilities are included in the general education setting to the greatest extent possible, they can make strong social connections to their classmates. Students who receive special education services are included and are provided with their individual required support based on their IEPs. Oftentimes, co-teaching classrooms is a way to meet this need. This co-teaching environment will allow them to access the general education curriculum as

well as working on their individual goals and objectives. Each student has a set of goals in reading, writing, mathematics, or study skills. These goals can be addressed in the general education setting where co-teaching is being implemented.

Co-teaching occurs regularly in public schools, however, there is wide variability in its implementation. Some educators rely on methods that may not be the best fit for their students or lessons. With six different approaches, the most effective method for the classroom may not be used. Teachers should work together to adequately plan each lesson with care and attention to the co-teaching method that would be the most beneficial to the individual situations and circumstances in the classroom. The benefits of co-teaching are well documented when co-teaching best practices are adhered to, especially in adhering to legal requirements and an increase in student learning and performance.

Exemplar Model

An exemplary model of co-teaching relies on collaboration and communication between the co-teachers to remain effective and cohesive. The teachers (one special educator and one general educator) must work together to create meaningful and engaging strategies for their class of high school students. A teacher in a successful co-teaching classroom focused on reading states they “...decided to work as a team so we could jump into the heartbeat of instruction. We wanted to see how closely we could get to creating the ideal reading resource learning setting for our students” (Cherneck, 2018, p. 3). This type of cohesive collaboration creates a seamless transition between teachers to deliver the best lesson and use every moment of instruction to the greatest extent possible.

It is important to approach co-teaching as one unit working together for the success of the shared students. When addressing communication in co-teaching, one teacher stated,

“We communicated every day! While Brittany is the special educator and I am the regular educator, we both just assume the role of ‘teacher’ to all students. We are both well versed in the accommodations and modifications our students need to be successful” (Rufo & Causton, 2022). These types of pairings provide an exemplary model for schools and districts to consider when planning to implement and support co-teaching in a school. When teachers are given the time and ability to collaborate, the instruction can be more seamless and productive.

Teacher Pairing

Intentional teacher pairing in co-teaching partnerships is essential. Administrators should consider this pairing when creating teacher schedules to avoid conflicts. Nierengarten (2013) found that giving teachers the choice in who they would like to co-teach with allows teachers to take ownership of the decisions. Also, middle and high school teachers appreciate the chance to choose the subject in which they co-teach. It encourages them to become well-versed in the specific subject of their choice and impacts their ability to differentiate instruction in a positive manner (Nierengarten, 2013). Administrators should seek to match teachers using factors such as personality and learning preferences. This can increase the success for co-taught classrooms (Murawski, 2015). Teacher pairing has a significant impact on co-teaching success and should be considered at the beginning of each school year to ensure teachers are in a placement they will enjoy and find successful.

Theoretical Foundations

There are many researched and published models for co-teaching. The purpose of this study was to determine which method is most commonly and effectively used at the middle and high school level in the researcher’s school district. Co-teaching has become

even more important since the COVID-19 pandemic. After students returned from the virtual setting to live instruction, many have returned with increased educational needs (Rufo & Causton, 2022). Since returning to in-person learning, teachers are also instructing larger class sizes than they previously had. Teachers report that they are struggling to balance the needs of all learners in their classrooms (O-Scanail, 2021). Co-teaching is one solution that can support more diverse student needs to be met in one classroom setting. Co-teachers can build better relationships with their students, divide their classroom responsibilities, and work together for the success of all students (O-Scanail, 2021). Teachers who are actively engaged in a strong co-teaching relationship have been found to provide students with more opportunities to respond, get feedback, meet in small groups, and receive better individualized instruction (Sweigart & Landrum, 2015). When co-teaching is done right, the benefits are abundant.

Using the six co-teaching models, teachers can implement strategies that increase learning for students. The six approaches are: one teach, one observe; one teach, one assist; parallel teaching; station teaching; alternative teaching; and team teaching (Bacharach et al., 2008). These models vary in the time needed to prepare and plan. One-teach, one-observe is documented as the lowest level of planning required, however, it can be useful in new co-teaching situations or to monitor students' progress. The model that requires the highest level of planning is alternative teaching. This model is useful for enrichment activities and when there is a significant difference in students' knowledge of a concept (Hanover Research, 2012). Rufo and Causton (2022) acknowledge that one teach, one assist is the one of the most used methods and is often over relied upon. The wide variety of models and theories provide the framework that is used daily in the implementation of co-teaching. Each

strategy requires varied levels of planning and engagement between teachers; however, planning is often a barrier to success in co-teaching.

Barriers to Effective Implementation of Co-Teaching Strategies

Implementing co-taught classes in a public-school setting does not guarantee that the practice will be effective and implemented well. There are some barriers that can affect the effectiveness of this practice. These barriers include not enough common planning time, personal teacher relationships and pairing, lack of shared expectations, incongruent teacher perceptions, and subject knowledge.

When these barriers are acknowledged and addressed openly, teachers can continue to create a meaningful and successful co-teaching experience and classroom. Being aware of the potential pitfalls of co-teaching prior to beginning can guide planning to ensure the issues before they become a larger problem.

ARTIFACT II

RESEARCH APPROACH AND RESULTS

Research Approach

Often, teachers approach a co-teaching assignment with little to no formal requisite co-teaching training. This research study sought to address the most used co-teaching model and teacher perceptions on educating students with disabilities in the middle and high school classroom setting in the researcher's district. The two research questions to better understand and evaluate co-teaching approaches and teacher perceptions were: What is the most common co-teaching strategy used in a middle or high school co-taught classroom? and What are the teachers' perceptions on educating students with a disability in their classrooms?

A survey was conducted of co-teaching faculty at the researcher's school district of employment. The results led to the creation of a co-teaching professional development opportunity for all staff at the secondary level, an educational handout, and a plan for coaching implementation going forward to support successful implementation.

A 2019 survey conducted by the National Center for Learning Disabilities found that most teachers expressed that they felt underprepared and unsupported in teaching students who require specialized instruction. Many general education teachers reported they did not take specific courses in teaching students with mild to moderate learning disabilities (Galiatsos et al., 2019). Without this requisite training, teachers may not have developed the

skills to best understand and educate students who have a disability with an IEP. A teacher may choose to implement different strategies based on the student's individual disability.

Without this valuable training, many teachers have difficulty understanding how students with disabilities learn. They may also struggle to conceptualize the co-teaching model and work with other co-teachers. This often creates a division that results in special educators falling into the "helper" role in the classroom when co-teaching (Faraclas, 2018). This approach misses the key points and theoretical understanding of effective co-teaching and the approaches for implementing effective co-teaching strategies. With proper education and training, teachers can successfully implement co-teaching strategies with fidelity. Co-teachers can build better relationships with their students, divide their classroom responsibilities, and work together for the success of all students (O-Scanail, 2021). Co-teaching is a solution that allows diverse student needs to be met in one classroom setting, typically the general education room, when it is implemented effectively.

Turnbull and colleagues (2010) identified five key components of collaborative teaching, another term referencing co-teaching. These components are Building Team Structure, Learning Teamwork Skills, Taking Team Action, Teaching Collaboratively, and Improving Communication and Handling Conflict. Building a Team Structure involves creating a plan for instruction and making sure school policies support all learners. Learning Teamwork Skills is essential for co-teachers to learn and practice necessary teamwork skills. Here, teachers should plan and agree on a shared goal and vision related to student progress.

Problem-solving, creating action plans and identifying appropriate assessments and program evaluations are imperative in taking action for the best co-teaching experience. When these proactive steps are taken and the groundwork has been previously laid, teaching

can be natural and effective. Through the collaborative teaching process, teachers learn one another's areas of instructional strengths. Lastly, co-teaching requires open communication, strong partnerships, and trust (Turnbull et al., 2010). With these aspects in place, teachers can avoid future conflicts and focus on providing the best instruction possible.

Method

Survey

A survey of certified faculty in the researcher's school district was conducted to assess the problems around implementation and effectiveness of co-teaching processes, gaining greater insight into the co-teaching strategies most frequently used in the district. Institutional Review Board (IRB) approval was applied for and granted through the University of North Dakota's IRB. The survey took place in a public school district in the northeastern region of the USA with certified teachers of grades 6-12. Only certified (licensed) teachers who have worked in a co-teaching relationship were asked to participate. The superintendent of schools approved the survey of staff in grades 6-12 in the district. An email was sent out to gain participation in June of 2022. A follow-up email was sent to remind potential participants to complete the survey in June 2022. All data were collected using an online, anonymous survey using Qualtrics. Data were then analyzed and reported using descriptive statistics.

The participants responded to a variety of open and closed-ended questions. These questions were used to determine their perspectives on the most effective co-teaching model and the reasons for their responses based on their personal and professional experiences. This approach was used to gain a greater understanding of the strategies and methods co-teachers rely on most to support students in a co-taught classroom within the school district. Data were collected via an anonymous survey to obtain information on participant's

perspectives on which strategies are used most and least in their middle and high school classrooms and why. This approach allowed the researcher to identify patterns, analyze data and use participant quotes to further explain and support the results obtained.

The sixteen-question survey was conducted using Qualtrics to collect data using a blend of closed-ended, Likert scale, ranking questions, and open-ended questions to identify participants' experiences and perspectives. There were twelve survey questions designed to help the researcher better understand the demographics, co-teaching preferences, and student needs. The remaining open-ended questions allowed the researcher to gain greater insight through direct quotes and narrative responses. This strengthened the results by providing more explanation behind the results and rationale of the data for the perceptions, rankings, and teacher need.

The questions were developed using the literature examined. There was a lack of literature that determined the most and least used co-teaching method. This survey aimed to address and answer this question. The questions asked provided a picture of what co-teaching looks like in the district and what teachers feel they continue to need to have a successful co-teaching relationship. This information drove the implementation of the solution. See Appendix G for the sixteen survey questions used in this research.

The open-ended responses provided for the collection of additional descriptive narrative to support understanding of the reasoning behind the responses to the closed-ended questions. Specifically, further information was gathered on the specific reasons the teacher ranked their chosen number one strategy as most effective. Additionally, the open-ended questions provided insight on the necessary traits for an effective relationship with their co-teacher; behaviors that make for an ineffective relationship with their co-teacher; and their

perception of the benefits of educating students with IEPs in the general education classroom with support.

Survey limitations and biases

The limitations identified in this survey include the risk that people may provide answers that are not honest, the use of a small sample size, and participant fatigue. Additionally, the questions may be interpreted differently among participants, or participants may not answer all questions asked. Participants shared their perspectives, opinions, and knowledge, which can be unreliable. Participant fatigue was evident as the small sample size of 45 participants at the beginning of the survey progressively reduced to 34 as the survey progressed, indicating participant fatigue.

To support open, honest responses from participants, anonymity was assured to all participants. This was assured through anonymous responses using an online survey system, Qualtrics. Qualtrics is a protected system provided through the University. Assurances of anonymity and securely stored data were assured through the informed consent process at the start of the survey.

Reasonable measures were taken to reduce potential bias in the analysis of the data given that the researcher had preexisting positive biases regarding co-teaching and its effectiveness prior to beginning research. These biases were reduced through the approval of the questions by the dissertation committee to mitigate the tendency toward positive bias.

Demographics

The study was conducted, with administrative permission, in the researcher's school district of employment. The location for the study was a town-wide school district in a Northeastern state within the United States. According to data from the 2020-2021 school

year, the town serves approximately 3,000 students in grades K-12. Additional demographic data indicates that 75% of students are classified as White; 13% Hispanic/Latino; 2% Black or African American; 6% Asian; and 4% Two or More Races.

Of all students in this district, only 11% of students qualify for Free or Reduced-Price Meals. Students who have a disability make up 14% of the total school population. The district's public schools are comprised of one high school (grades 9-12), two middle school campus locations (grades 6-8), and three elementary schools (grades PK-5).

Participants

For this study's purpose, only teachers at the high school and middle school campuses were surveyed to elicit a secondary (grades 6-12) perspective on co-teaching. Participants were certified/licensed general education or special education teachers. The survey was sent via secured school email to all middle and high school faculty members once all permissions and approvals were secured from the dissertation committee, University Institutional Review Board, and administrative approval to begin the research.

The researcher attempted to recruit approximately 150 special educators, general educators, and administrators to participate in this survey. Not all teachers qualified to take the survey as they have not all been in a co-taught classroom. It is possible that some of the non-responding teachers qualified to complete the survey but were not currently in a co-taught classroom. There were sixty participants who partially completed the survey; however, thirty-four completed responses were received. The following tables provide additional information on the participants' experience and roles.

Participants answered these questions via ranking and Likert Scales. Survey questions first focused on demographic information including teacher role, grade level, co-

teaching experience, and the teachers current co-teaching placement. Four qualitative questions were created that allowed teachers to elaborate and explain their choices to gather additional information from participants.

Participants specified their role in the school. Twelve participants identified as special education teachers, thirty-one participants identified as general education teachers, and two identified as administrators with previous co-teaching experience.

Table 2
Participation by Role and Grade Level Taught

Special Education Teacher	26.67%	12
General Education Teacher	68.89%	31
Other	04.44%	2
Middle School	40%	18
High School	55.56%	25
Other (Admin)	4.44%	2

Participants then identified the grade level they taught, eighteen teachers identified as teaching middle school, twenty-five identified as teaching high school, one identified as both, and one identified as a district-level administrator.

Table 3
Teachers Currently Co-Teaching and Years of Experience Co-Teaching

Yes	31.82%	14
I have in the past, but not currently	68.18%	30
1-2 Years	15.79%	6
3-5 Years	15.79%	6
6-9 Years	23.68%	9
10+ Years	44.74%	17

Fourteen teachers identified that they are currently co-teaching, and thirty participants identified that they are not currently co-teaching but have in the past. Those currently co-teaching are actively involved in collaboration and partnership processes in the

2021-2022 school year. The teachers who co-taught in the past are not currently co-teaching but have previous experience in the area and can participate in the study. The teachers who are current co-teachers or who have in the past provided valuable information in this study.

Most responses indicated a prominent level of co-teaching experience (10+ years) across all responses. About 45% of respondents reported over ten years of experience with co-teaching. Twenty-three percent of teachers reported 6-9 years of co-teaching experience and about 32% of teachers reported 1-5 years of experience co-teaching. The results show that most teachers in a co-teaching relationship in the district have a wealth of experience in the area. These teachers may be more likely to be set in their ways and have established a co-teaching strategy that has worked well for them for several years.

Table 4
Teachers Level of Voluntary Co-Teaching Placement

Yes, I did volunteer	38.09%	16
No, I did not volunteer	61.90%	30

When participants were asked if they volunteered to co-teach, approximately 62% of teachers report that they did not volunteer to co-teach. Thirty-eight percent of teachers report that they did volunteer to co-teach. Other authors suggest that co-teaching requires an increase in time and collaboration for it to succeed (Siegemund and Johansen, 2021). There is a notable increase in workload when entering a co-teaching relationship. With only 38% of teachers volunteering to take on the responsibility of co-teaching, there is a visible lack of willingness to voluntarily participate in co-teaching. Professional development, training, and continued coaching can ensure that teachers feel prepared and supported throughout the co-teaching process.

Results of Inquiry

After collecting survey results, reports were generated using Qualtrics to compile and interpret the data. Many of the results demonstrated that teachers agreed with each other on most of the research survey areas, such as the preferred method and social-emotional benefits of co-teaching.

Survey results

The survey collected valuable information regarding participants' demographics, preferred co-teaching methods, the need for professional development, and the perceived benefits of co-teaching. When reviewing results, patterns were identified and analyzed to determine the common co-teaching strategies used among teachers. The survey questions were designed to address the following research questions identified: What is the most common and successful co-teaching strategy used in a middle or high school co-taught classroom? What are teachers' perceptions of educating students with disabilities in their classrooms? The results were used to drive the conclusions and decisions made to determine the best and most common practices among teachers.

Table 5

Teacher Knowledge of Co-Teaching Strategies

Yes	37.50%	15
No	32.50%	13
I know some, but not all	30%	12

Teachers responded to the question, “Are you aware of the six co-teaching strategies?” Results indicated that 37.5% of participants were aware of the six co-teaching strategies, 32.5% were not aware of the six co-teaching strategies, and the remaining 30% knew some of the strategies, but not all. Meaning, over 60% of co-teachers surveyed were

not aware of all the strategies they could be using in their classroom to make their teaching practices more effective.

Participants were then asked to rank the strategy they found most (1) to least (6) effective for their students. One Teach, One Assist was identified as the most effective strategy for middle and high school students with 47% of teachers making this their number one choice. One Teach, One Observe was identified as the least effective strategy with 67% of teachers reporting this as their last choice. One Teach, One Observe is supported as the least effective strategy according to other researchers (Rufo & Causton, 2022). This method does not allow both teachers an opportunity to provide instruction to students. It does, however, allow one teacher to collect relevant information and data that may be important for monitoring progress. With one teacher simply observing, they are free from teaching responsibilities and can spend more time observing students' progress and behaviors. One Teach, One Assist does not require a high level of co-planning as the content area teacher provides the bulk of the instruction to the entire class (S.E.R.C., 2017). This is often the method teachers fall back on as it requires less planning and daily collaboration. The findings of this survey found that One Teach, One Assist was the most relied upon strategy in the researcher's school district even though it has been found to be one of the least effective (Rufo & Causton, 2022).

Effectiveness

Table 6

Preference of Co-Teaching Strategies Used from Most to Least Effective

<i>Co-Teaching Strategy</i>	<i>1(most)</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6(least)</i>
One Teach, One Observe	5.56%	2.78%	5.56%	5.56%	13.89%	66.67%
One Teach, One Assist	47.22%	16.67%	11.11%	2.78%	19.44%	2.78%

Parallel Teaching	11.11%	16.67%	16.67%	30.56%	16.67%	8.33%
Station Teaching	5.56%	19.44%	22.22%	19.44%	27.78%	5.56%
Alternative Teaching	11.11%	25%	33.33%	16.67%	13.89%	0%
Team Teaching	19.44%	19.44%	11.11%	25%	8.33%	16.67%

Teachers showed a preference for One Teach, One Assist where one teacher delivers the bulk of content instruction while the other can manage other classroom tasks. The strategy that was ranked second most used was a tie between Station Teaching (where students rotate between teachers for small group lessons) and Team Teaching (teachers are at the front of the classroom teaching the same content together). Alternative Teaching was ranked the third most used strategy. Alternative Teaching occurs when one teacher works with a small group and the other is instructing the larger group. The strategy that was ranked as least effective was One Teach, One Assist with nearly 67% of teachers ranking this as least effective. One participant noted in defending their choice of One Teach, One Assist, “One teacher can assist the students who need one on one attention or redirection.” These qualitative questions and quotes are comments that support the results above.

Similarly, another participant stated, “Having someone who can walk through the room and assist students that are obviously struggling (and finding the ones that are trying not to make it obvious) is useful. It allows one to keep the class moving and the other to help individual students so that everyone can be successful.” This participant stated “With special education kids (sic), they often need someone reminding them to stay focused or to help them with problems when it is time for them to practice. The ‘assistant’ teacher can refocus and assist with all the little things while the other teacher can maintain most of the class.” This aligns with previous findings that the One Teach, One Assist model allows for

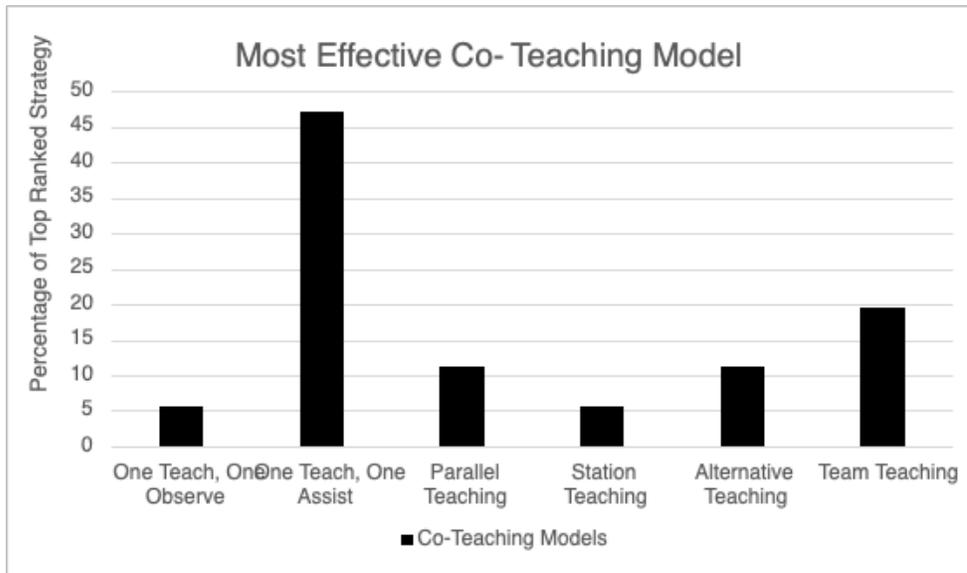
increased classroom management, individual support for all students, and gives the opportunity for new teachers to observe seasoned teachers (Continental Press, 2022).

When it comes to secondary teachers' content specific instruction, others see the benefit of team teaching based on responses. A participant in favor of team teaching stated, "Both teachers deliver instruction." Another teacher agreed and noted, "Students get multiple perspectives and both teachers feel empowered and have buy in to be responsible for student learning."

Many feel that it is best when students have one teacher acting as the main person delivering instruction. Another participant supported this idea by articulating, "In middle school, the content area teacher knows the curriculum better and collaborates with the co-teacher to modify instruction." On a similar realm this participant noted, "I feel it is easier for all students to focus on instruction [when] there is only one teacher for the main part of the lesson, then divide the class into groups and differentiate instruction for each group as necessary." This thought is also supported by research when one teacher may fall into the authority figure role and the other, the assistant. When teachers hold the same authority level within the classroom, they are more likely to build a positive learning environment and get the best out of their students (Sims, 2008).

Figure 2

Most Effective Co-Teaching Model

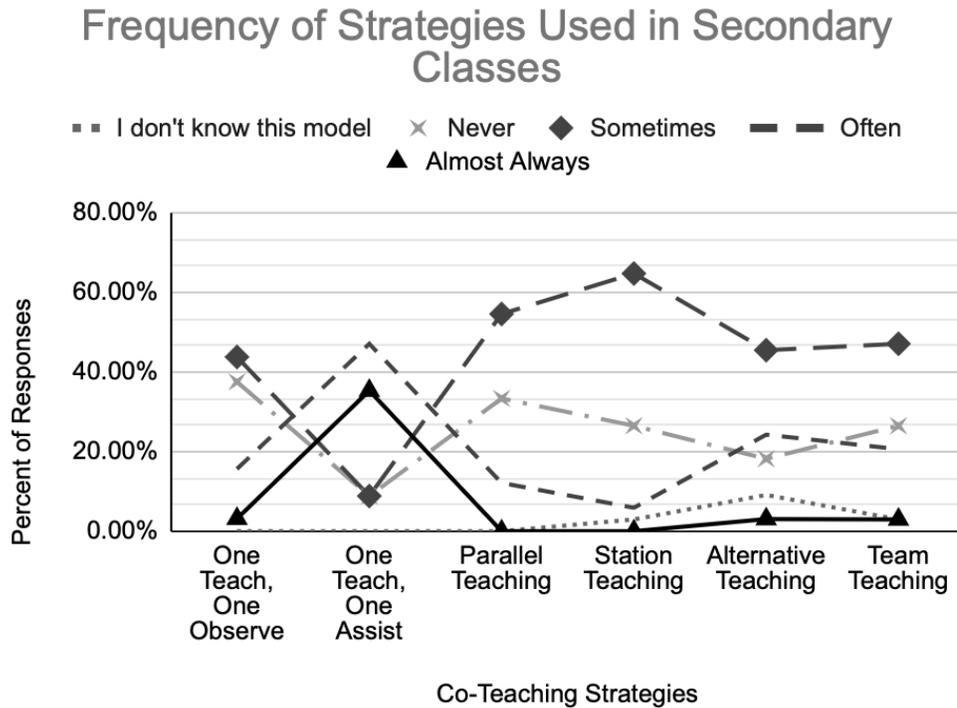


From the data provided, teachers strongly feel and agree that “one teach, one assist” is the most effective co-teaching strategy at the secondary level (grades 6-12). Participants appreciate the teacher with the most content knowledge delivering the bulk of the instruction while the special education teacher assists all students around the classroom to meet their individual needs. This is supported with one participant noting, “I feel it is easier for all students to focus on instruction [when] there is only one teacher for the main part of the lesson, then divide the class into groups and differentiate instruction for each group as necessary.” Another participant wrote, “I find that when one person takes the lead and the other assists, it allows the other to work closely with those that need one-to-one instruction, reinforcement, and focus that the identified or struggling students need.” These support the feeling from many participants that One Teach, One Assist is the most effective co-teaching strategy used in their classrooms.

Frequency

Figure 3

Frequency of Strategies Used in Secondary Classes



Next, participants ranked how frequently they used each co-teaching model in their current or former co-taught classes. Teachers indicated that One Teach, One Assist was used the most frequently with approximately 47% of teachers reporting this was their most used strategy. Participants indicated the model One Teach, One Observe was “Never” and “Sometimes” used making it the least frequently ranked strategy of the six models.

Using a Likert Scale, participants rated on a scale of one to five the extent they felt co-teaching increased their students’ learning and academic performance. Teachers ranked with a mean, or average, of 4.1 that co-teaching positively affects student performance. The minimum score given was one, meaning co-teaching does not positively affect student

performance, and the maximum score was a five indicating the highest level of effectiveness. With a mean of 4.1, this indicates that many of the participants felt strongly that co-teaching positively increases their students' learning and academic performance. Based on participant responses such as this, "If co-teaching is executed responsibly, many accommodations provided by an IEP allows for a student's learning, success, and confidence in the classroom" and "This allows students an appropriate education with peers in the least restrictive environment." Overall, most teachers feel that co-teaching is a solution that increases student learning in the general education setting. It was found in a recent 2021 study conducted by King-Sear and colleagues that students in a co-taught classroom benefitted more than their peers pulled into a special education resource room setting. It was also found that co-teaching was more beneficial to students at the secondary level than for those students in elementary co-taught classes (King-Sears et al., 2021).

Additionally, teachers expressed how positively or negatively implementing co-teaching strategies increased their students' social and emotional well-being using a Likert Scale. Teachers ranked with a mean of 4.31 indicating that co-teaching positively increased the social and emotional well-being of their students. The lowest score given was a three, and the highest score ranked was a five. Participants indicated that they see the benefits of co-teaching. Some teachers feel benefits reach beyond academics and positively impact important social-emotional aspects as well. One teacher noted that, "They do better with regular ed peers" and another wrote that, "I think socially it is good for children."

Christensen (2021) notes that co-teaching promotes inclusion and a sense of community made up of a group of people working toward the same goal of success and growth. Many

teachers in the researcher’s school district also see the benefits of educating students with their peers without disabilities.

Professional Development

Participants shared their thoughts regarding professional development. They identified if they feel they have received adequate professional development in co-teaching. Teachers ranked with a mean, or average, of 2.5 indicating many teachers, about half, do not feel they have had adequate professional development relative to effective co-teaching models.

Table 7
Professional Development Options Teachers Would Find Helpful

Modeling of successful co-teaching classrooms	36.76%	25
Professional Development	36.76%	25
Reading texts on co-teaching practices	08.82%	6
Webinars	14.71%	10
Other	02.94%	2

To follow up on their professional development preparedness, teachers later identified via multiple choice questions which professional development options they would find most helpful. The multiple-choice options included: 1-Modeling of successful co-teaching classroom 2-Professional development 3-Reading texts on co-teaching practices 4-Webinars 5-Other. Written responses to “Other” included two clarifying comments of “none” and “planning time.” Participants indicated they would benefit most from seeing a model of a successful co-teaching classroom and partnership along with proper professional development on co-teaching. Coaching and modeling co-teaching strategies through regular support would be a solution that can address the need for further professional development in the area of co-teaching.

School districts can address these gaps by providing adequate professional development and training on the six co-teaching strategies and allowing teachers time to collaborate and set the groundwork for a strong co-teaching relationship for a successful school year. Adequate professional development includes a faculty education session, ongoing support from the administration, and continued coaching. From the open-ended responses collected via the survey, teachers responded that they need “A willingness to learn from each other's expertise of instructional strategy and curriculum content” and “Co-planning time, constant communication, trust, respect.”

These statements from participants support the need for time to plan, learn from each other in their content area, and time to build a strong relationship. When two teachers in a co-teaching partnership with diverse backgrounds and experience in education work together to solve a problem or teach a difficult concept, they are much more likely to solve that problem and instruct their students effectively (Murdock, 2015). A collaborative effort can assist teachers in reaching their goals by working together in an independent and reciprocal manner (Saskatchewan, 2015). Providing professional development and coaching can help build collaboration between teachers to achieve their goals and increase student learning outcomes. Nearly 37% of participants reported that they would benefit from modeling of a successful co-teaching classroom and professional development. Participants could choose more than one option for this question. The two responses to “Other” included the comments, “None” and “Planning time.”

Many teachers enter a co-teaching relationship with little to no formal training in co-teaching practices. Teachers get little preservice training on how to teach collaboratively, therefore, they rely on the school district to provide them with professional development

(Sparks, 2022). Sparks (2022) found that special education teachers were five times more likely to worry that general education teachers would struggle to adapt the core instruction to align with their recommendations based on student needs. Providing co-teaching training to both general and special education teachers can help bridge the gap in knowledge of effective strategies. This training may be the only exposure to co-teaching strategies that some teachers may receive.

Participants responded to the question, “What is necessary for an effective co-teaching relationship with the co-teacher?” Conversely, participants shared what makes for an ineffective relationship with their co-teacher. A participant stated that they need “communication between the teachers on what will work best in the classroom, what the responsibilities of each teacher will have in the classroom and workload.” Other participants noted that to successfully have an effective co-teaching relationship, the pair needs a “common philosophy and willingness to take constructive criticism” as well as “conversations on what expectations and knowledge of strategies, and most importantly co-planning time!!!!”

Effective Co-Teaching Relationships

Using the open-ended question, “In your opinion, what makes for an effective relationship with your co-teacher?” responses were analyzed, and teachers reported that the following characteristics and strategies were imperative for an effective co-teaching relationship. These strategies, both effective and ineffective and were gathered from the open-ended responses that included similar strategies mentioned. Like comments were grouped together to create a cohesive list in order from most common responses to least common.

1. Clear communication and flexibility;
2. Common co-planning time;
3. Trust and respect for each other and their skill set;
4. Shared accountability and workload;
5. Taking equal responsibility for every student in the classroom;
6. Understanding of curricular material well enough to teach it;
7. Common goals, philosophy, and views on student needs;
8. A good relationship between co-teachers with respect;
9. Understanding of roles and boundaries;
10. Willingness to take constructive criticism and learn from each other's expertise.

The results of this study align with findings from other authors. Co-teaching requires time and collaboration and includes a wide variety of responsibilities. Co-teachers must agree with what will occur in the lesson for the day, who will instruct which components of the lesson, the instructional models that will be used, and the modifications and accommodations that will be used with each student (Pratt et al., 2016).

In addition to the findings from participants, *Actualizing a Needs-Based Model* (2015) notes that effective collaboration requires professional development and training for all members of the team. It also suggests putting a system and structure in place that supports integrated support models, clarity of purpose, roles and individual teacher accountability, commitment and shared expectations to co-teaching outcomes, communication that is open, trusting, and has respectful dialogue, and leadership that is committed to building and fostering a collaborative environment. A successful collaborative relationship must have many distinct aspects such as those mentioned that are necessary for

success. From the results of the survey, participants acknowledged many of these aspects as a requirement for a successful co-teaching relationship such as communication, common philosophies, and commitment to their students. With these effective relationship qualities in place, teachers are much more likely to succeed and be the best teachers they can be for the benefit of their students.

Ineffective Co-Teaching Relationships

Participants reported that the following characteristics and strategies made for an ineffective relationship with their co-teacher. Like comments were grouped together to create a cohesive list in order from most common responses to least common.

1. Lack of communication;
2. No common planning times;
3. Poor personal relationship;
4. Lack of trust;
5. When a co-teacher does not learn the content area curriculum;
6. When one teacher is seen as a paraprofessional or aide;
7. Inability to collaborate and dominating the lesson;
8. Superiority complex, power struggle;
9. Disrespect for one another;
10. Dividing the students based on their disability.

To remedy these negative relationship qualities, Caudill, and colleagues (2019) provide six ways to reduce the impact of a negative relationship: complete a co-teaching contract, address issues right away, assume positive intent, establish agreed-upon norms, learn effective communication strategies, and develop a conflict-resolution strategy. Time

and effort must be put in to achieve positive and effective outcomes. These negative qualities provided by participants can help future and current teachers learn what to avoid in their co-teaching relationship.

Perception of Students with IEP's

Lastly, participants answered an open-ended question at the conclusion of the survey to gain information on teacher perceptions of educating students with disabilities. Overall, teachers reported positive perceptions about educating students with IEP's and the benefits it provides. In the past, the inclusion of students with disabilities that include social, emotional, or behavioral disorders have been reported to be problematic for teachers and are often followed by negative teaching attitudes (Cook et al., 2007). Currently, research has found that teachers at the secondary level hold more negative attitudes related to the social acceptability of students with disabilities. Additionally, these negative attitudes were specifically negative toward male students, those with behavior problems, and those with an intellectual disability (Di Maggio, Ginervra, & Nota, 2021). These negative teaching attitudes can directly affect students and their academic performance.

Teachers provided their perceptions on including students with IEPs in the general education setting using co-teaching. The general themes gathered from participant responses centered on the benefits of co-teaching, positive social interactions, and teacher pairing. Some participants noted the benefits that co-teaching can bring. One teacher stated, "As a mom of two special ed sons and a teacher of over 30 years, I feel very passionately about regular ed and special ed teachers working collaboratively. It benefits the students, the staff, and parents." Another teacher commented on their perceived benefits of co-teaching writing, "It is effective and allows students to feel included. There is also opportunity to reach

beyond their goals.” One participant noted the importance that co-teaching has related to IDEA and the least restrictive environment for the student. This respondent indicated, “It is of utmost importance for students to experience the least restrictive environment as often as possible.” This least restrictive environment must be as close as possible to that of a regular education classroom (Underwood, 2018). When students are in the general education classroom longer, they can maintain friendships and foster a sense of community. Keeping students involved and included in the general education setting can have benefits seen by educators and students.

Motivating factors such as leadership quality, social relationships with teacher teams, and the success teachers have in their profession affect job satisfaction among teachers (Macalady, 2021). Another participant recognized that teacher pairing is just as important. They wrote, “I feel that co-taught classes can be effective depending on the staff you are pairing. It can be designed to succeed or fail.” Similarly, another participant stated, “It is only effective if the teachers make a good team. That can look different but if two teachers do not work well together, they will not be effective and should not be forced to team teach. It does not help the kids if they are not a good team.” Encouraging and pairing teachers that will work well together will provide overall satisfaction and increased success from the co-teaching pair.

Examining the social benefits to students is an important aspect of determining success for co-teaching strategies. The social benefits of co-teaching were addressed when a teacher stated, “I think socially it is good for children. I’m still not convinced that it is best for academics.” This participant is still questioning the academic benefits of co-teaching on the other hand. This is an example of the work that still needs to be done in ensuring

professional development and acceptance of all students and the teaching strategies that support them appropriately. Another respondent simply stated, “They do better with regular ed peers.” The social and emotional well-being of our students is equally as important as academics. By allowing all students to be educated together it can help create a sense of community and support among teachers, staff, and other students.

Teachers recognized that the greater number of staff involved with student learning is important. For example, “I feel as though the ‘more hands-on deck’ method with team teaching is incredibly valuable for the students and almost necessary in core classes with large numbers.” Another teacher stated, “As a special education teacher we have strong rapport with our students and understanding their IEPs. Being in the room to assist their learning on a subject that is a weaker area for them allows for their growth.”

Overall, teachers report that they feel students with a disability can be educated in the general education setting if the proper supports are put in place with fidelity regularly. A participant wrote, “It is effective and allows students to feel included. There is also opportunity to reach beyond their goals.” Another teacher noted, “I feel as though the ‘more hands-on deck’ method with team teaching is incredibly valuable for the students and almost necessary in core classes with large numbers.” Lastly, another participant wrote, “Students with IEP’s benefit greatly due to the ability to engage with their regular education peers. They are positive about being in the regular education classroom and are eager to prove themselves while there.” Teachers also mention the importance of staff pairings often. If staff are not a good fit together, teachers report that co-teaching may not be as effective.

Summary

This research study sought to identify what participants felt was the most effective co-teaching strategy of the six main types. The data supports the notion that teachers in this school district primarily rely on the One Teach, One Assist model as their primary strategy in implementing co-teaching. Overall, teachers reported that co-teaching is beneficial and supports learners both academically and socially. Additional findings indicated that most teachers felt that they did not receive adequate professional development and a large majority of teachers did not volunteer to co-teach.

A notable take-away from this research is that most special education teachers feel students benefit from the general education teacher doing the bulk of the academic instruction while the special education teacher redirects, pulls small groups, explains the content in new ways, and encourages questioning. Teachers strongly feel they need common planning time, clear communication, trust, and respect for each other to have an effective co-teaching partnership.

Following review of the results, a professional development seminar and handout were created to disseminate findings and teach effective strategies proven to improve student success. This professional development will serve as an educational tool to enhance co-teaching and inclusion strategies and share the valuable information gained from this research study. Teachers felt that seeing a modeled co-teaching classroom would be a beneficial aspect of professional development. With this need in mind, a plan for continued coaching in the future was created to ensure that teachers have support and a clear understanding of co-teaching requirements.

Recommendations

Co-teaching is an art that requires practice and determination for it to succeed. It is recommended that co-teachers meet before the beginning of the school year to complete a contract and organizational roles and responsibilities agreement. This agreement will set the stage for teachers to begin a new relationship with clear expectations to follow. It eliminates the guessing game that comes with a new partnership. Regarding roles and responsibilities, as one participant commented, “Both teachers have to share the responsibilities of the classroom – not doing the same tasks necessarily but sharing the load of the work. Both teachers should be able to teach the lessons effectively and both should be able to assist the students individually.”

Communication and collaboration are essential. One participant wrote, “Communication of expectations for each teacher in the room” is what is needed for an effective relationship. Another went on to write, “Communication between the teachers on what will work best in the classroom, what the responsibilities of what each teacher will have in the classroom and workload.” This shared responsibility allows both teachers to be seen as an ‘authority’ figure in the classroom who communicate effectively and with purpose.

It is also recommended that teachers ensure they are well-versed in the content and the several types of co-teaching and best practices. “Both parties have to understand the material well enough to teach it; the teachers have to respect each other; it isn’t mine and your children but ‘our’ children” noted one survey participant. If teachers feel they are not adequately prepared, professional development should address this. Lastly, continued

reflection and coaching is essential to ensure teachers are growing and adapting to the needs of their co-teaching relationship and classroom.

ARTIFACT III

IMPLEMENTATION OF THE SOLUTION

The findings of this survey will be used to provide professional development opportunities to the researcher's school district to increase staff knowledge on effective co-teaching practices and strategies, as well as provide an outline and plan for future coaching in implementing best practices for co-teaching across the district. Additionally, the information gathered on teacher perceptions toward working with students with disabilities will be included. This information is meant to inform and educate faculty and staff on the necessary components, strategies, challenges, and benefits that co-teaching can bring to a classroom with students of varying needs. This research was used to create a presentation that can be used for large or small group settings. Continued coaching is imperative for co-teaching pairs to develop and strengthen their co-teaching skills and strategies. Ongoing coaching and mentoring fits with best practices for adult learners (LINCS, 2015).

Professional Development

Thirty-six percent of respondents indicated that both modeling a successful co-teaching classroom and professional development would be most beneficial. An interactive professional development session can be used to effectively educate teachers and staff on researched and proven co-teaching practices. The presentation provides education on co-teaching strategies and opportunities for practice and modeling. In the survey conducted, teachers answered a question about whether they felt they have received adequate professional development in their previous educational experience. This low average

indicates that only half of the teachers surveyed felt they were not fully prepared to use co-teaching strategies. Some felt the professional development they previously had was not enough to prepare them for real-world co-teaching experiences.

To address this need, the researcher created a professional development workshop for all co-teaching staff at the secondary level. This addresses the lack of foundational knowledge of co-teaching and supports participant's experimentation with new techniques that may better assist their students' needs. An educational handout was also created and attached to allow participants to refer to it when needed.

In order to assess if the professional development was effective and engaging, participants are asked to complete a quick reflection to provide meaningful feedback. See Appendix G for the Professional Development Feedback Form. The presenter will use the feedback received to better tailor the presentation to the adult learners needs in the future.

Coaching

Professional training limited to one hour is not an effective practice for adult learners as a stand-alone solution. From what is known about adult learners, one professional development session is not enough. Knight (2007) found that with a high-quality workshop only, less than 20% found this single method helpful and successful, whereas a high-quality workshop with instructional coaching was found to be beneficial for successful implementation by over 80% of respondents. Instructional coaching adds an additional layer of support and guidance. Immediate feedback can be given to improve skills in real-time with guided reflection. Continued learning and practice is the best way to improve skills for adult learners.

Adult learners have a different learning experience than those that are given to children and teens. Valamis (2020) outlines adult learning principles that use prior experience and adult learning theories to make the learning experience meaningful.

1. Adults have a higher sense of self-direction and motivation;
2. Adults will use their life experience to facilitate further learning;
3. Adults focus on achieving goals;
4. Adults need to know how the information learned is relevant;
5. Adults are practical in nature;
6. Adults are looking for mentorship and help when necessary;
7. Adults are open for modern ways of learning;
8. Adults want to choose how they learn (Valamis, 2020).

Adults should be instructed in ways that make them feel their time is valued. They come with prior experience and knowledge that is vast. Adults will be more open to the learning experience if they are treated with respect regarding their experiences and learning styles (WOSH Specialist Training Supplemental Module, n.d.). Keeping these principles in mind, presenters and coaches should adapt their teaching methods to those more appropriate and considerate of adult learners' needs. Professional development sessions should not look like a room full of adults being lectured to. Rather, adults should be given the freedom of choice in selecting opportunities and how they will learn that will be beneficial and relevant to their current work.

In addition to providing foundational knowledge through a professional development session, continued coaching and support are imperative to provide adequate in-the-moment training to co-teaching staff. Nearly 37% of participants reported in the survey for this study

that they would benefit from modeling of a successful co-teaching classroom and professional development. Coaching is a purposeful way to improve co-teaching strategies and learning for student success. Instructional co-teaching coaches help teachers create goals, monitor progress, problem-solve, and attain their goals through ongoing support (Knight, 2007). Fitzell (2017) found that the failure rate when initiating co-teaching is high without ongoing coaching and support throughout the implementation process. This guidance is necessary to help teachers transition into successful implementation and decide which strategy works best for their specific group of students. When investing in coaching, a school can reduce the failure of co-teaching relationships. The coaching process can build teacher confidence in the process and remarkable growth in their students (Fitzell, 2017). Coaching not only improves teacher practices but encourages better instruction and collaboration to meet student needs.

Knight (2011) found that coaching models should include observations and collaborative conferences focused on problem solving. The coaching sessions should be established with a strong partnership and continued practice where teachers have a choice of the focus and set goals and applications together (Haneda et al., 2017). A co-teaching instructional coach must be knowledgeable in co-teaching practices and research-based interventions (Knight, 2011). These coaches should have experience using the co-teaching models and have had successful implementation of the strategies themselves.

Coaching Protocol

The recommended coaching plan and protocol begin with the initial planned professional development session to introduce co-teaching concepts and modeling. After the presentation, co-teaching pairs meet with their coach to review the completed expectations

worksheet and create a plan moving forward and agree to the Co-Teaching Contract in Appendix C. The Co-Teaching contract outlines specific aspects of the co-teaching relationship before, during, and after the lesson, as well as some year-round commitments.

The Coaching Evaluation worksheet is designed to be completed by the coach while they are observing the lesson. See Appendix E for the Coaching Evaluation Worksheet. It can help guide strengths and weaknesses and provide guiding questions for review at the post-lesson meeting with co-teachers. Coaches will have the chance to observe the pair as they teach as normal. From these observations the coach will be looking for the type of co-teaching strategies used, the level of development of the strategies used, overall strengths and weaknesses, and the following questions:

1. Is there mutual respect in the co-teaching relationship?
2. Is there parity between co-teachers?
3. Are both teachers engaged in the lesson equally?
4. What is their communication like about lesson planning?
5. How is instruction being differentiated?
6. How is the balance between instructing those students who are ready to move on and those that still require specialized instruction at a slower pace? (Fitzell, 2017).

After the observation, coaches and teaching pairs will meet to discuss the findings and give feedback based on those observations. The meetings will occur every three to four weeks to review progress, questions, and instructional practices. Guise and colleagues (2021) outline a productive plan for coaching. They suggest that for each observed session the coach meets with the pair for one hour afterward.

The session is driven by the pair's problem of practice and their co-teaching goal. The problem of practice is the area in which the co-teachers will focus to improve their skills with the guidance of their coach. This problem of practice can range from deciding on which co-teaching strategy is most effective for their group of students or it can be working together to plan lessons appropriately for two teachers. The coach may ask for feedback on any co-teaching challenges they are experiencing one week prior to the planned observation. The coach can attend the observation with a topic in mind to address and provide perspective. This topic can be the problem of practice or another goal area for each teacher.

Following the observation, the coach will remind the pair of their goal, engage in reflective conversations, brainstorm ideas, give suggestions related to the challenges they are facing, and end with a reflective prompt focused on the next steps and any questions for the pair (Guise et al., 2021). See Appendix F for a Co-Teaching Planning and Reflection Form for teachers to complete before and after the lesson. This form helps teachers focus both on the planning and reflection aspects in order to improve co-teaching skills.

An open and honest discussion with the coach and teachers can occur when this protocol is put into place. These weekly meetings will ensure that both teachers agree upon any differences in a professional and effective manner. The coach can follow up with added observations to review progress and pitfalls using the Coaching Evaluation Worksheet. The coach can serve as an intermediary when necessary to help resolve conflict while giving teachers skills they need to solve future problems independently. This coaching model should continue throughout the school year with regular check-ins and meetings as necessary to address concerns.

In addition to encouraging and supporting reflection and goal setting, the coach will also provide tools and guidance to address the challenges that come with co-teaching. The coach can offer three options: offering a resource, offering a solution, or offering an explanation (Guise et al., 2021). These three options allow teachers to find the best solution to the unique problem they are facing. Having a choice in the solution can give teachers an appropriate fix to the problem. In order to remedy any negative relationship qualities that may arise, Caudill and colleagues (2019) provide six ways to reduce the impact of a negative relationship: complete a co-teaching contract, address issues right away, assume positive intent, establish agreed-upon norms, learn effective communication strategies, and develop a conflict-resolution strategy. The researcher will also be available for consultation with co-teaching staff within her school district to help with guidance and support throughout the coaching and professional development process.

CONCLUSION

According to IDEA (2020), all students are entitled to a free and appropriate public education regardless of their individual needs. Children with disabilities are entitled to receive an education with their peers without a disability and to be educated in an educational environment that supports the nature and severity of their individual disability. Co-teaching is a strategy widely implemented to provide students with disabilities with a quality education alongside their peers.

There are six co-teaching strategies that are commonly used in schools across the country to provide extra support in the general education setting for students both with and without disabilities. These approaches are: One Teach, One Observe; One Teach, One Assist; Parallel Teaching; Station Teaching; Alternative Teaching; and Team Teaching

(Bacharach et al., 2008). This study aimed to determine which of these approaches was primarily used by secondary teachers in the researcher's school district. A sixteen-question survey was conducted using Qualtrics to collect data using a blend of closed-ended, Likert scale, ranking questions, and open-ended questions to identify participants' preferences more closely.

This study will provide educators with a guide to co-teaching strategies, benefits, challenges, and perceptions. The information gathered from the study answered the research questions:

1. What is the most common co-teaching strategy used in a middle or high school co-taught classroom?
2. What are the teachers' perceptions on educating students with a disability in their classrooms?

Results from this survey indicated that the secondary teachers (grades 6-12) in the researcher's school district primarily rely on the One Teach; One Assist model. Of all participants, 47% of teachers ranked this strategy as the most used co-teaching strategy. The strategy that was ranked least used was One Teach; One Observe with 66% of participants ranking this as the lowest. Teachers feel that instructing students with disabilities in the general education setting is beneficial for these students, especially for their social and emotional well-being.

About 37% of participants were aware of all six co-teaching strategies while the remaining were unaware (32%) or knew of only some strategies (30%). There is a deficit of knowledge regarding co-teaching practices and strategies that should be addressed to

increase understanding and successful implementation of the practice. Without this education, teachers will continue to implement strategies such as One Teach, One Assist.

A professional development presentation was created to inform faculty of the study's findings and provide an educational opportunity to improve current co-teaching practices. It is anticipated this will support faculty to form stronger relationships with clear expectations and opportunities for communication through shared understandings. It is evident that practice is required to master the minute details that co-teaching relies on, however, with clear guidelines and training, this is a step in the right direction.

Coaching is key to provide continued support for co-teachers. A strategic plan can be implemented to ensure co-teaching partnerships are supported and reflect the most up-to-date research and co-teaching strategies. Frequent observations, planning sessions, and check-ins can ensure a stronger implementation of co-teaching and for this educational strategy to run smoothly and efficiently for the benefit of all students.

While common co-planning time can be a barrier to the success of co-teaching, Pratt et al. (2016) proposed a solution to overcome this challenge. It is suggested that teachers go beyond the regular school day if needed and try an online interactive solution, such as Google Docs, use the individual strengths and expertise of each teacher, and divide up the work between both teachers so that one person does not take on all the work. These three strategies can help both teachers become equal partners in co-planning regardless of the time allotted.

In all, co-teaching can be a successful strategy to mitigate the needs of students with disabilities receiving most of their instruction in the general education setting. It allows a highly qualified set of teachers to work together to deliver content in a way that will serve

many students. While challenges may arise, communication, trust, and transparency are the key to ensuring a professional and productive working relationship between co-teachers. One teach, one assist allows the general education teacher to deliver the main content while the special education teacher can ensure that accommodations and modifications are addressed. However, there are more effective co-teaching strategies such as Team Teaching (Rufo & Causton, 2022) that can provide greater support and resources of both teachers in the co-teaching classroom.

With professional development and continued coaching, co-teachers can experiment and try new skills to determine which strategy works best for their classes. Coaches can provide the necessary guidance and feedback to support teachers in trying a new way of teaching. After two years of coaching and changes in the culture of co-teaching and strategies used, the survey can be re-administered to compare results. The new results can help determine the progress made and the effectiveness and use of new strategies.

Appendix A
Presentation Slides

(Presentation notes will appear under applicable slides)

Co-Teaching Strategies and Teacher Perceptions

Krystie Lynn Seese
Professional Development Presentation

My Background

- Education
 - Southern Connecticut State University; B.S. Elementary/Special Education; B.S. Liberal Studies
 - University of Bridgeport; M.S. Elementary Education
 - Post University; M.Ed. Teaching and Learning
 - Southern Connecticut State University; M.S. Information and Library Science
 - Sacred Heart University; 092 Administrative Certificate
 - Completing Ed.D. at University of North Dakota
- Professional Teaching
 - 10 years in public schools as a special education teacher spanning grades 2-12
 - Wilson Reading System Dyslexia Practitioner and Certified Educator
 - Private after school tutor

Outcomes

Participants will be able to:

1. Identify and describe the six co-teaching strategies used in co-taught classrooms.
2. Engage in thoughtful discussion with peers and co-teachers regarding division of responsibilities and teacher perceptions.
3. Explain both the benefits and drawbacks of co-teaching.
4. Begin co-teaching relationships with a strong foundation and better understanding of best practices.
5. Understand the potential biases and perceptions of students with special needs.



What is
Co-Teaching?

What is Co-Teaching?

- Co-Teaching is defined as the act of two or more certified teachers working together “...for the outcome of achieving what none could have done alone” (p.11) (Wenzlaff, Berak, Wieseman, Monroe-Baillargeon, Bacharach & Bradfield-Kreider, 2002).
- Another common definition includes, “...two or more professionals delivering substantive instruction to a diverse, or blended, group of students in a single physical space” (Cook & Friend, 1995).





Why Co-Teaching?

Why Co-Teaching?



- IDEA Mandates

“Children with disabilities, including children in public or private institutions or other care facilities, are educated with children who are not disabled, and that special classes, separate schooling, or other removal of children with disabilities from the regular educational environment occurs only when the nature or severity of the disability is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily” (IDEA, 2020).

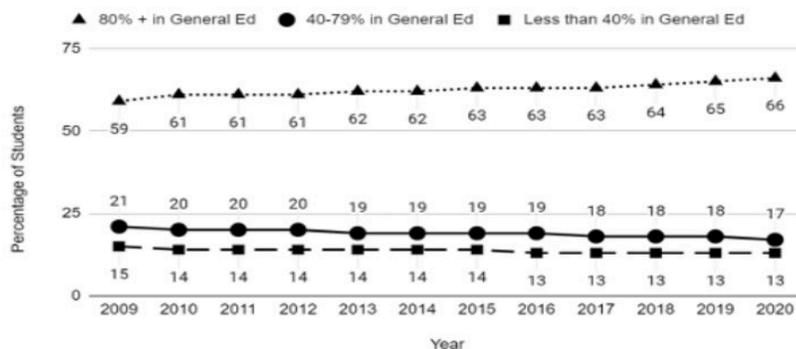
- Least Restrictive Environment

Students must be educated in a setting that is the least restrictive, meaning they must be educated with typical peers to the greatest extent possible. This is where co-teaching is used to allow students to be educated together while still receiving special education services.

Plus, it can help all students. What is good for one, is beneficial for all!

Increase of Time in the General Ed Setting

Percentage of Students who Spent Various Amounts of Time in General Education



Students served under IDEA who spend 80 percent or more of their school day in the general education setting have increased from 59 percent in the Fall of 2009 to 66 percent in the Fall of 2020. On the other hand, the percentage of students who spent less than 40 percent of their school day in general education classes has decreased from 15 to 13 percent (The National Center for Education Statistics, 2022). These trends are represented over a 10-year period and demonstrate the increase in students spending more of their day in the general education setting with their non-disabled peers.

FAPE- Free Appropriate Public Education

“Disability is a natural part of the human experience and in no way diminishes the right of individuals to participate in or contribute to society. Improving educational results for children with disabilities is an essential element of our national policy of ensuring equality of opportunity, full participation, independent living, and economic self-sufficiency for individuals with disabilities.”

All students are entitled to a **free appropriate public education** (FAPE). This allows students to receive special education and related services at no cost to their parents (IDEA, 2020). All special education costs and services must be appropriate to meet the students’ individual needs. It is imperative that students are given meaningful opportunities that they are entitled to. *About IDEA* (2022) notes,

Co-Teaching Strategies

Six Co-Teaching Strategies

There are six approaches to co-teaching that are currently used, they are:

1. One teach, one observe;
2. One teach, one assist;
3. Parallel teaching;
4. Station teaching;
5. Alternative teaching;
6. Team teaching.

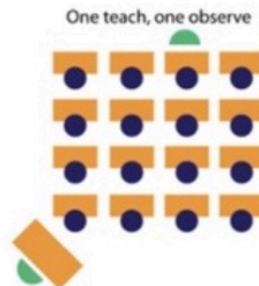
(Bacharach, Washut Heck, & Dahlberg, 2008)

Approaches to Co-Teaching (S.E.R.C., 2017)

One Teach, One Observe

One-teach, one-observe occurs when one teacher is observing and gathering data while the other teachers the class.

[Video Example](#)



This approach allows teachers to analyze data and information together. However, the instruction is primarily delivered by the main teacher in the classroom, typically, the general education teacher.

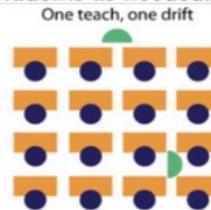
<https://www.youtube.com/watch?v=S3AK33YOZfE>

Approaches to Co-Teaching (S.E.R.C., 2017)

One Teach, One Assist

One teach, one assist allows one teacher to be the primary educator of the lesson while the other teacher circulates through the room assisting students as needed.

[Video Example](#)



This allows students who need extra support to get help now instead of waiting for help later.

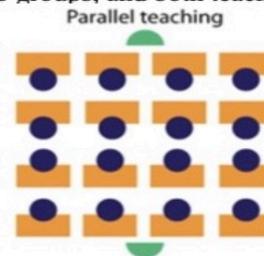
https://www.youtube.com/watch?v=AeUa_cdaC6w

Approaches to Co-Teaching (S.E.R.C., 2017)

Parallel Teaching

Parallel teaching is when teachers divide the class into two groups, and both teach the same content simultaneously.

[Video Example](#)



This creates smaller class sizes and allows teachers greater ability to provide individualized instruction and modify the pace of the lesson.

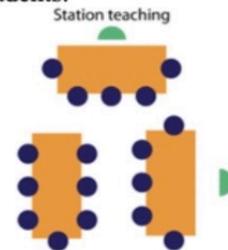
<https://www.youtube.com/watch?v=gLi4LiUopwY>

Approaches to Co-Teaching (S.E.R.C., 2017)

Station Teaching

Station teaching occurs when teachers divide both content and students.

[Video Example](#)



Each teacher runs a station and repeats the lesson to the next group. This allows smaller groups and individualized instruction for all students.

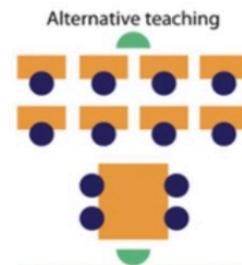
<https://www.youtube.com/watch?v=hrprg1r7kSs>

Approaches to Co-Teaching (S.E.R.C., 2017)

Alternative Teaching

Alternative teaching allows one teacher to take responsibility for the large group while the other teacher works with a smaller group.

[Video Example](#)



Students can work with the second teacher in a small group or transition to the larger group.

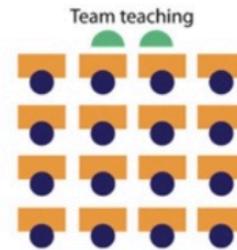
<https://www.youtube.com/watch?v=hrprg1r7kSs>

Approaches to Co-Teaching (S.E.R.C., 2017)

Team Teaching

This approach allows both teachers to deliver the same instruction at the same time.

[Video Example](#)



SERC (2017) reports this is one of the more common co-teaching approaches.

<https://www.youtube.com/watch?v=MVeFjRdSH3c>

Who Can Co-Teach?

Co-teaching reaches further than just one general education and one special education teacher. Co-teaching can involve the following:

- General education teachers and special education teachers
- Paraprofessionals and a specialist or general education teacher
- Two general education teachers
- Speech language pathologists and a special or general education teacher
- Social worker and a special or general education teacher
- Other support staff (including volunteers) and special or general education teachers
- Selected teachers (music, art, language, computers, etc.) and a special or general education teacher (Kumar & Singh, 2021)

What Co-Teaching is Not!

- Implementing the same lessons, the same way you teach without a co-teacher
- Having two certified teachers provide instruction to a homogenous class
- Grouping students with disabilities to work solely with the special education teacher in the back of the class or removing them to receive instruction in their own separate classroom

(Bresnahan & Pedersen, 2009).

What are the Pros and Cons?



Benefits

- Allows for positive social interactions for all students.
- Peers are able to learn empathy, inclusion, and acceptance of all people regardless of their differences.
- Co-teachers demonstrate and model teamwork, encouragement, support, and politeness through daily interactions (Christensen, 2020).
- Students with disabilities who are included within the general education program have higher test scores on standardized tests in reading and math, have fewer absences from school, have fewer referrals for disruptive behavior, and have better outcomes after high school in employment and independent living (Wagner, Newman, et. al, 2006).

Drawbacks

- Requires a large amount of collaboration between special education and general education teachers.
- The lack of common planning time has been repeatedly confirmed as an area of difficulty in co-teaching Siegemund and Johansen (2021).
- The lack of common planning time can be a large barrier to the successful implementation of co-teaching.
- Not all teachers have had training in co-teaching during their teacher preparation programs, therefore, they lack knowledge on strategies and expectations.

Findings of the Study- Commonly Used Strategy

- Most commonly used strategy from researcher's school district for secondary teachers: One Teach, One Assist (47% identified as most common).
- Least commonly used strategy: One Teach, One Observe (67% identified as least common).
- 37% of teachers were aware of the six co-teaching strategies; 30% knew some, not all; and 33% were not aware of all strategies.
- Only 38% of teachers volunteered to co-teach.
- 45% of participants have co-taught for over 10 years.

One Teach, One Assist is a common strategy but lacks true collaboration between teachers. Rufo & Causton (2022) call it One Teach, One Point or One Teach, One Crawl as one teacher is carrying the bulk of the instruction and the other is refocusing students. This strategy requires the lowest level of planning. Team teaching is an effective model, however, this requires common planning time between co-teachers.

“In your opinion, what makes for an effective relationship with your co-teacher?”

1. Clear communication and flexibility;
2. Common co-planning time;
3. Trust and respect for each other and their skill set;
4. Shared accountability and workload;
5. Taking equal responsibility for every student in the classroom;
6. Understanding of curricular material well enough to teach it;
7. Common goals, philosophy and views on student needs;
8. A good relationship between co-teachers with respect;
9. Understanding of roles and boundaries;
10. Willingness to take constructive criticism and learn from each other's expertise.

“In your opinion, what makes for an ineffective relationship with your co-teacher?”

1. Lack of communication;
2. No common planning times;
3. Poor personal relationship;
4. Lack of trust;
5. When a co-teacher does not learn the content area curriculum;
6. When one teacher is seen as a paraprofessional or aide;
7. Inability to collaborate and dominating the lesson;
8. Superiority complex, power struggle;
9. Disrespect for one another;
10. Dividing the students based on their disability.

PAIR UP!

Find your Co-Teaching Partner!



- Once you've settled in with your co-teaching colleague, answer the following:
 - What do you hope your year of co-teaching will look like?
 - Share your experiences with co-teaching in the past? What worked? What didn't?
 - What communication method do you prefer?
 - What are your goals for the year for yourself? Your students? Your co-teacher?
 - Is there anything that worries you when it comes to successful co-teaching?

- Next, complete the co-teaching Co-Teaching Roles and Responsibilities Worksheet together!

Co-teaching is an art that requires practice and determination for it to succeed. It is recommended that co-teachers meet before the beginning of the school year to complete a contract and organizational roles and responsibilities agreement. This agreement will set the stage for teachers to begin a new relationship with clear expectations to follow. It eliminates the guessing game that comes with a new partnership.

Co-Teaching Roles and Responsibilities Worksheet

Co-Teaching Roles and Responsibilities

Name: _____ Co-Teacher Name: _____

Responsibility (Curriculum/Content)	Special Educator	General Educator	Shared Responsibility
Maintaining curriculum track and pacing			
Developing and creating lesson plans			
Teaching primary course content			
Planning instructional activities			
Modifying instructional materials			
Creating study guides/class notes			
Complete report cards			
Grading of homework/assignments			
Putting small group or individual instruction			
Responsibility (Parent/Staff Communication)	Special Educator	General Educator	Shared Responsibility
Parent teacher conferences			
Parent communication (positive and negative)			
Communicate to all related service providers			
Inform parent on student needs			
Present at IEP and team meetings			
Responsibility (IEP/Data Collection)	Special Educator	General Educator	Shared Responsibility
Implement IEP goals and objectives			
Collect and analyze data on goals and objectives			
Collect and analyze data on general classroom			
Responsibility (Classroom Procedures)	Special Educator	General Educator	Shared Responsibility
Maintaining classroom behaviors			
Follow-up/monitor behavior intervention plans			
Take attendance			
Create and implement classroom management plan			
Manage technology and technology use			

Coaching	Special Educator	General Educator	Shared Responsibility
Develop co-teaching goals			
Administer long-term co-teaching			
Seek feedback and implement change			
Communicate regularly with each other about challenges			
Come prepared for coaching sessions			
Be an active participant in sessions			

Adapted from Anna M. Springler (2005)

Take some time to work together to start the Co-Teaching Roles and Responsibilities Worksheet Individually. After both teachers complete it, they will compare results and determine where each responsibility should lie.

Let's Practice!

What is needed for successful co-teaching?

- Let's role play and practice some co-teaching strategies we can use in our classrooms!
 - 2 volunteers
 - Demonstrate six co-teaching strategies
- Which do you feel was most effective? Why?
- Which do you plan on using in your classroom together?

2 Volunteers will demonstrate what the six co-teaching strategies look like using the room of teachers. The volunteers will be directed by the presenter in order to accurately demonstrate the strategies. The teachers will be "teaching" 2 digit by 2 digit subtraction with regrouping. After demonstrating each strategy, the teachers will be asked which strategy they liked best as a student and why. Teachers can meet with their co-teaching partner to determine which strategy they plan to start using in their classroom together. This modeling exercise allows participants to experience different strategies first hand as a student.

Teacher Perception and Biases

Let's discuss some positive and negative perceptions found in the study. What are your thoughts?

Positive Perceptions:

- "It is effective and allows students to experience the least restrictive environment as often as possible."
- "Beneficial, they tend to model up."
- "Being in the general ed classes allow students to observe and model their peers, which could be beneficial to their academics and/or behaviors. A teacher can say or do something a million times, but a peer can do it once and that's all it takes."
- "They do better when with regular ed peers."
- "Many students benefit from having two qualified teachers in the room."

Negative Perceptions:

- "Sometimes works."
- "I think socially it is good for children. I'm still not convinced that it is best for academics."
- "It is only effective if the teachers make a good team. That can look different but if two teachers do not work well together, they will not be effective and shouldn't be forced to team teach. It doesn't help the kids if they aren't a good team."
- "I do not think it's appropriate for students who are unable to understand the concepts at the middle school level."

Findings of the Study- Teacher Perceptions

- What perceptions do you agree with? Disagree with?
- How can we change our perspectives of teaching those with disabilities in our classrooms?
- Were there any common themes among responses?
- Think about your perceptions? Are they generally positive or negative?

So, What's Next?

1. Continued coaching and professional support can help co-teachers to learn and grow together. A third party can provide intermediary support and guidance when needed.
2. Collaboration and honest communication can help solve issues as they arise and allow teachers to work together for the benefit of the student.
3. Use common planning time effectively to maximize instructional planning.

References

- About IDEA. Individuals with Disabilities Education Act. (2022, October 11). Retrieved October 27, 2022, from <https://sites.ed.gov/idea/about-idea/>
- Bacharach, N., Washut Heck, T., & Dahlberg, K. (2008). Co-Teaching In Higher Education. *Journal of College Teaching & Learning*, 5(3).
- Christensen, M. (2020, August 5). *How the co-teaching model benefits children: February 18, 2021: Julie Billiart schools: Helping K-8 students with learning differences in Akron, Lyndhurst, and Westlake, Ohio.* February 18, 2021 | Julie Billiart Schools | Helping K-8 students with learning differences in Akron, Lyndhurst, and Westlake, Ohio. Retrieved February 21, 2022, from <https://www.juliebilliartschool.org/the-latest/blog/2021/02/18/how-the-co-teaching-model-benefits-children>
- Cook, L. & Friend, M. (1995). Co-teaching: Guidelines for creating effective practices. *Focus on Exceptional Children*, 28(3), 1-17.
- IDEA. Individuals with Disabilities Education Act. (2020, November 24). Retrieved November 19, 2021, from <https://sites.ed.gov/idea/about-idea/#IDEA-Purpose>.
- Kumar, D., & Singh, M. (2021). Collaborative Teaching and Teachers Role in an Effective Approach to Inclusive Education. *International Research Journal of Engineering and Technology*. <https://www.researchgate.net/publication/354269465>
- National Center for Education Statistics, (2019). Children and youth with disabilities. Retrieved from https://nces.ed.gov/programs/coe/indicator_cge.asp
- S. E. R. C. (2017, January 30). *Six approaches to co-teaching.* State Education Resource Center. Retrieved November 12, 2021, from <https://etserc.org/component/k2/item/50-six-approaches-to-co-teaching>.
- Wagner, M., Newman, L., Cameto, R., Levine, P. and Garza, N. (2006). *An Overview of Findings From Wave 2 of the National Longitudinal Transition Study-2 (NLTS2).* (NCSE 2006-3004). Menlo Park, CA: SRI International.
- Wenzlaff, T., Berak, L., Wiese, K., Monroe-Baillargeon, A., Bacharach, N., & Bradfield-Kreider, P. (2002). Walking our talk as educators: Teaming as a best practice. In E. Guyton & J. Ranier (Eds.), *Research on meeting and using standards in the preparation of teachers* (pp. 11-24). Dubuque, IA: Kendall-Hunt Publishing.
- Co-Teaching Photos: <https://edu240coteaching.wordpress.com/what-does-co-teaching-look-like/>

Appendix B

Co-Teaching Roles and Responsibilities Worksheet

Co-Teaching Roles and Responsibilities

Name: _____ Co-Teachers Name: _____

Responsibility (Curriculum/Grading)	Special Educator	General Educator	Shared Responsibility
Maintaining curriculum track and pacing			
Designing and creating lesson plans			
Teaching primary course content			
Planning instructional activities			
Modifying classwork/tests/projects			
Creating study guides/class notes			
Complete report cards			
Grading of homework/tests/projects			
Pulling small group or individual instruction			
Responsibility (Parent/Staff Communication)	Special Educator	General Educator	Shared Responsibility
Parent teacher conferences			
Parent communication (positive and negative)			
Communicate to all related service providers			
Instruct para's on student needs			
Present at IEP and Team meetings			
Responsibility (IEP's/Data Collection)	Special Educator	General Educator	Shared Responsibility
Implement IEP goals and objectives			
Collect and analyze data on goals and objectives			
Collect and analyze data on general classroom			
Responsibility (Classroom Procedures)	Special Educator	General Educator	Shared Responsibility
Maintaining classroom behaviors			
Follow/Implement behavior intervention plans			
Take attendance			
Create and implement classroom management plan			
Manage technology and technology use			

Coaching	Special Educator	General Educator	Shared Responsibility
Create co-teaching goals			
Attend hour long follow up sessions			
Take feedback and implement change			
Communicate regularly with coach about challenges			
Come prepared for coaching sessions			
Be an active participant in sessions			

Adapted from Anne M. Beninghof (1995)

Appendix C

Co-Teaching Contract

Co-Teaching Contract

By signing below, I acknowledge that I agree to the following terms for the co-teaching classroom we share.

Before initiating a co-teaching relationship, I agree to:

- Value and respect the strengths of the other teacher
- Meet weekly (or more) to plan our co-teaching
- Work to resolve conflicts that naturally occur in a timely manner
- Do my fair share to ensure an equal partnership
- Other _____

Before planning sessions and lessons, I agree to:

- Complete the pre-planning worksheet
- Review curriculum and familiarize myself with content
- Establish goals for each lesson
- Consider student needs and present levels of performance for all students
- Reflect on previous lessons
- Complete tasks that were agreed upon
- Notify my partner of any changes in the schedule or lesson
- Decide upon the co-teaching strategy used for the lesson- determine roles
- Other _____

During lessons, I agree to:

- Respect my partner and give them an opportunity to lead the instruction, if appropriate
- Be willing to adjust plans to meet student needs
- Address student behaviors as a team
- Abide by all agreed upon terms
- Check with my partner before making major adjustments to lesson plans
- Other _____

After lessons, I agree to:

- Reflect on student outcomes and progress
- Discuss the collaborative relationship with my partner and address any concerns
- Fulfill agreed upon follow-up responsibilities
- Other _____

Regularly during the year, I agree to:

- Discuss the co-teaching relationship
- Attend IEP Meetings for shared students
- Follow student modifications and accommodations
- Provide/accept suggestions that will enhance co-teaching and improve student learning
- Attend coaching sessions regularly and participate with fidelity
- Other _____

Co-Teacher

Date

Co-Teacher

Date

Adapted from Holm, M., Sulzberger, L. A., & Grosser, D. (2016). *Co-Teaching Considerations Packet*. William and Mary.

Appendix D

Educational Handout for Faculty



What is Co-Teaching?

Co-teaching is when two or more certified teachers work together to meet the needs of the diverse learners in their classroom, especially those students with disabilities. Co-teaching is a widely implemented way to educate children with and without disabilities in the general education setting.

Who can Co-Teach?

- General education teachers and special education teachers
- Paraprofessionals and a specialist or general education teacher
 - Two general education teachers
- Speech-language pathologists and a special or general education teacher
 - Social worker and a special or general education teacher
- Other support staff (including volunteers) and special or general education teachers
- Specials teachers (music, art, language, computers, etc.) and a special or gen ed teacher.

What is it not?

- Implementing the same lessons, the same way you teach without a co-teacher
 - Having two certified teachers provide instruction to a homogenous class
- Grouping students with disabilities to work solely with the special education teacher in the back of the class or removing them to receive instruction in their own separate classroom.

What are the six strategies?

There are six commonly used co-teaching styles and approaches. These approaches are one teach, one observe; one teach, one assist; parallel teaching; station teaching; alternative teaching; and team teaching.

Why is it important?

Students are entitled to a free and appropriate public education and those with disabilities are entitled to IDEA mandates. Co-teaching can help schools meet these needs while providing the least restrictive environment for learning.

- Allows for positive social interactions for all students.
- Peers are able to learn empathy, inclusion, and acceptance of all people regardless of their differences.
- Co-teachers demonstrate and model teamwork, encouragement, support, and politeness through daily interactions.

- Students with disabilities who are included in the general education program have higher test scores on standardized tests in reading and math, have fewer absences from school, have fewer referrals for disruptive behavior, and have better outcomes after high school in employment and independent living.

Which is most effective?

- According to the survey completed by staff, the most commonly used strategy among secondary teachers is One Teach, One Assist (47% identified as the most common).
 - Least commonly used strategy: One Teach, One Observe (67% identified as least common).
- 37% of teachers were aware of the six co-teaching strategies; 30% knew some, not all; and 33% were not aware of all strategies.
 - Only 38% of teachers volunteered to co-teach.
 - 45% of participants have co-taught for over 10 years.
- According to Rufo & Causation (2022) One Teach, One Observe and One Teach, One Assist is the least effective strategy whereas Team Teaching is more effective.

What are some challenges?

- Requires a large amount of collaboration between special ed and general ed teachers.
 - The lack of common planning time has been an area of difficulty in co-teaching.
 - The lack of common planning time can be a large barrier to successful co-teaching.

Not all teachers have had training in co-teaching during their teacher preparation programs, therefore, they lack knowledge of strategies and expectations.

How can we improve?

- Attending a comprehensive co-teaching professional development that outlines each of the six models is a great first step!
 - Use an instructional coach or leader to observe your lessons and provide meaningful feedback.
 - Experiment with your co-teaching in using different strategies and examine student progress.
 - Try and use strategies outside One Teach, One Observe, and One Teach, One Assist.
 - Be open to change, spend time properly planning and allocate roles and responsibilities evenly.

Appendix E

Coaching Evaluation Worksheet

Co-Teachers Names:	
Date:	Subject:
Co-teaching strategy used: <ul style="list-style-type: none"><input type="radio"/> One Teach, One Assist<input type="radio"/> One Teach, One Observe<input type="radio"/> Parallel Teaching<input type="radio"/> Station Teaching<input type="radio"/> Alternative Teaching<input type="radio"/> Team Teaching	Secondary co-teaching strategy used: <ul style="list-style-type: none"><input type="radio"/> N/A<input type="radio"/> One Teach, One Assist<input type="radio"/> One Teach, One Observe<input type="radio"/> Parallel Teaching<input type="radio"/> Station Teaching<input type="radio"/> Alternative Teaching<input type="radio"/> Team Teaching
Effectiveness/Impression of Implementation of Co-Teaching Strategies:	
Check One: <ul style="list-style-type: none"><input type="radio"/> 5- Outstanding- Teachers are using a high level of co-teaching strategies that provide seamless transitions between teachers that demonstrates a high level of planning that is implemented with fidelity.<input type="radio"/> 4- Exceeds Expectations- Teachers are using a variety of models and demonstrate competency in co-teaching strategies in an effective manner.<input type="radio"/> 3- Meets Expectations- Teachers are confident in co-teaching strategies and meet classroom expectations.<input type="radio"/> 2- Needs Improvement- Teachers are attempting to use some co-teaching models, however, one teacher is the primary teacher while the other is used as support.<input type="radio"/> 1- Unacceptable- Teachers are not attempting to use effective co-teaching models and do not use resources effectively.	

Areas of Improvement:	Strengths:
Questions to Consider:	
<ol style="list-style-type: none">1. Is there mutual respect in the co-teaching relationship?2. Is there parity between co-teachers?3. Are both teachers engaged in the lesson equally?4. What is their communication like about lesson planning?5. How is instruction being differentiated?6. How is the balance between instructing those students who are ready to move on and those that still require specialized instruction at a slower pace?	

Adapted from Rufo & Causton (2022) and Fitzell (2017).

Appendix F

Co-Teaching Planning and Reflection Form

Co-Teacher Names:																															
Date:	Subject:																														
Before the Lesson																															
<ul style="list-style-type: none"> ○ Meet and co-plan for each lesson. ○ Outline the plans for the lesson with designated roles and responsibilities. <p style="margin-left: 20px;">Ensure Lesson Plans Include:</p> <ul style="list-style-type: none"> ○ Clear objectives ○ Designated co-teaching models that will be used for different parts of the lesson. ○ Identify modifications and/or accommodations that will be implemented. ○ Determine areas for differentiation, if necessary. 																															
After the Lesson																															
Identify the primary co-teaching model used: _____ Secondary model used, if applicable: _____																															
What we thought went well:	What we can improve upon next time:																														
Rate how successful the following areas were implemented. 1= Not Well, 5= Perfect																															
<ul style="list-style-type: none"> ○ Co-Planning ○ Parity ○ Implementation of Model ○ Using Advanced Models ○ Communication ○ Followed Shared Responsibilities 	<table style="margin-left: auto; margin-right: auto;"> <tr> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> </table>	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
1	2	3	4	5																											
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1	2	3	4	5																											
1	2	3	4	5																											
1	2	3	4	5																											

Adapted from Rufo & Causton (2022).

Appendix G

Professional Development Feedback Form

Professional Development Feedback Form

Please rate the following using this scale:

1= Strongly Disagree 2= Disagree 3= Neutral 4=Agree 5=Strongly Agree

1. The presenter was engaging and encouraged new learning

1 2 3 4 5

2. The content of the presentation was helpful in learning new co-teaching strategies.

1 2 3 4 5

3. I feel comfortable trying new strategies after this presentation.

1 2 3 4 5

4. This presentation was worth my time.

1 2 3 4 5

5. Please share something that could have made this presentation better.

6. Do you have any outstanding questions?

Appendix H

E-mail to Staff to Ask for Participation

Good Morning Faculty!

If you haven't yet met me, my name is Krystie Seese and I am a Special Education Teacher at both the middle and high school. I am currently earning my Doctorate in Education (Ed.D.) from The University of North Dakota where I am in my last year of the dissertation process. I am focusing my area of study in special education, specifically on co-teaching.

In order to complete my dissertation, I am conducting a study and gathering data from the Public Schools staff on their opinion and knowledge of co-teaching strategies at the middle and high school levels. This information will be collected via an anonymous survey.

If you currently are, or have been, in a co-teaching classroom (general or special education), please consider completing this 16-question survey through The University of North Dakota's survey system, Qualtrics.

Most questions are multiple-choice or ranking. All information will be completely anonymous and no personal information will be collected. **This survey is limited to middle and high school general and special education teachers who are currently, or have been, a co-teacher of any subject.** It should take approximately 5-8 minutes to complete. Please disregard if these qualifications do not apply to you. This survey has been approved by the superintendent for distribution and collection. Please use this link to complete the survey:

https://und.qualtrics.com/jfe/form/SV_39nMTA04xTBoaW2

I appreciate your time and consideration! Thank you!!

Respectfully and with gratitude,

Krystie Seese

Appendix I

Follow Up Email to Staff for Participation

Hi Faculty!

This is just a friendly reminder to complete the co-teaching survey if you have not yet done so and are willing to help! The survey is only open to those staff who have been or are currently in a co-teaching classroom. I appreciate all who have submitted theirs already! The data gathered will remain confidential and the survey is completely anonymous through the University of North Dakota's survey system, Qualtrics. Please use the link below:

https://und.qualtrics.com/jfe/form/SV_39nMTA04xTBoaW2

I appreciate your time and help in my research!

Thank you,

Krystie Seese

Appendix J
Survey Questions

1

Co-Teaching Survey

Start of Block: Co-Teaching Survey

Q1 Your Role:

- Special Education Teacher
 - General Education Teacher
 - Other _____
-

Q2 Grade Level:

- Middle School
 - High School
 - Other _____
-

Q3 Are you currently co-teaching?

- Yes
 - No
 - I have in the past, but not currently
-

Q4 How many years have you been co-teaching?

- 1-2
- 3-5
- 6-9
- 10+
-

Q5 Did you volunteer to co-teach?

- Yes
- No
-

Q6 Are you aware of the six co-teaching strategies?

- Yes
- No
- I know some, but not all
-

Q7 Rank: Which strategy do you find is MOST (1) to LEAST (6) effective for your students?

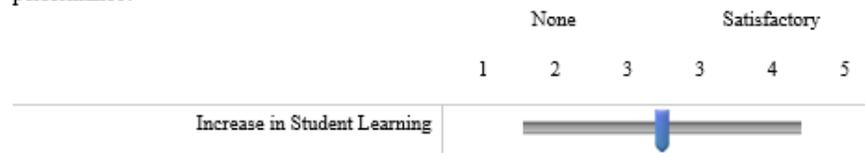
- _____ One Teach, One Observe
- _____ One Teach, One Assist
- _____ Parallel Teaching (Divide room into two groups and teach the same content simultaneously)
- _____ Station Teaching (Teaching concepts through rotating groups)
- _____ Alternative Teaching (One teacher takes responsibility for large group/one for the small group)
- _____ Team Teaching (Both teachers deliver same instruction at the same time)
-

Q8 Why do you feel your number 1 ranked strategy is most effective?

Q9 How frequently do you use each co-teaching method in your current classes?

	I don't know this model	Never	Sometimes	Often	Almost Always
One Teach, One Observe	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
One Teach, One Assist	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Parallel Teaching	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Station Teaching	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Alternative Teaching	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Team Teaching	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q10 To what extent do you feel co-teaching increases your students' learning and academic performance?



Q11 To what extent do you feel co-teaching increases your students' social and emotional wellbeing?



Q12 To what extent do you feel you have received adequate professional development regarding co-teaching?



Q13 Which of the following professional development options do you, or would you, find helpful?

- Modeling of successful co-teaching classroom
- Professional development
- Reading texts on co-teaching practices
- Webinars
- Other _____

Q14 In your opinion, what makes for an **effective** relationship with your co-teacher?

Q15 In your opinion, what makes for an **ineffective** relationship with your co-teacher?

Q16 What is your perception, or feelings, on the benefits of educating students with IEPs in the general education classroom with supports?

End of Block: Co-Teaching Survey

Appendix K

Consent to Participate in Survey

UNIVERSITY OF NORTH DAKOTA
Institutional Review Board Study Information Sheet

Title of Project: Faculty Experiences in Implementing Co-Teaching Strategies

Principal Investigator: Shannon Grave, 701-446-8843,
Shannon.Grave@und.edu
Co-Investigator(s): Krystie Seese, Krystie.Seese@ndus.edu

Purpose of the Study: The purpose of this research study is to gauge staff knowledge and use of common co-teaching strategies. The information gathered will drive an informational pamphlet regarding co-teaching strategies.

Procedures to be followed: You will be asked to answer 16 questions on a survey. Most questions are multiple-choice, rank, or open-ended.

Risks: There are no risks in participating in this research beyond those experienced in everyday life.

Benefits: You might learn more about yourself by participating in this study. You might have a better understanding of co-teaching strategies and reflection on which you rely on most.

Duration: It will take about 8 minutes to complete the questions.

Statement of Confidentiality: The survey does not ask for any information that would identify who the responses belong to. Therefore, your responses are recorded anonymously. If this research is published, no information that would identify you will be included since your name is in no way linked to your responses. All survey responses that we receive will be treated confidentially. However, given that the surveys can be completed from any computer (e.g., personal, work, school), we are unable to guarantee the security of the computer on which you choose to enter your responses. As a participant in our study, we want you to be aware that certain "key logging" software programs exist that can be used to track or capture data that you enter and/or websites that you visit.

Right to Ask Questions: The researchers conducting this study are Krystie Seese and advisor, Shannon Grave. You may ask any questions you have now. If you later have questions, concerns, or complaints about the research please contact Krystie Seese at Krystie.Seese@ndus.edu or Shannon Grave at Shannon.Grave@und.edu. If you have questions regarding your rights as a research subject, you may contact The University of North Dakota Institutional Review Board at (701) 777-4279 or UND.irm@UND.edu. You may contact the UND IRB with problems, complaints, or concerns about the research. Please contact the UND IRB if you cannot reach research staff, or you wish to talk with someone who is an informed individual who is independent of the research team. General information about being a

research subject can be found on the Institutional Review Board website "Information for Research Participants"
<http://und.edu/research/resources/human-subjects/researchparticipants.html>

Compensation: You will not receive compensation for your participation.

Voluntary Participation: You do not have to participate in this research. You can stop your participation at any time. You may refuse to participate or choose to discontinue participation at any time without losing any benefits to which you are otherwise entitled. You do not have to answer any questions you do not want to answer. You must be 18 years of age older to participate in this research study. Completion and return of the survey implies that you have read the information in this form and consent to participate in the research.

Please click the arrow to continue. No need to write in the box below.



Appendix L

IRB Safety Information Sheet

**UNIVERSITY OF NORTH DAKOTA
Institutional Review Board
Study Information Sheet**

Title of Project: Faculty Experiences in Implementing Co-Teaching Strategies

Principal Investigator: Shannon Grave, 701-446-8843, Shannon.Grave@und.edu

Co-Investigator(s): Krystie Seese, Krystie.Seese@ndus.edu

Purpose of the Study:

The purpose of this research study is to gauge staff knowledge and use of common co-teaching strategies. The information gathered will drive an informational pamphlet regarding co-teaching strategies.

Procedures to be followed:

You will be asked to answer 15 questions on a survey. Most questions are multiple choice, rank, or open ended.

Risks:

There are no risks in participating in this research beyond those experienced in everyday life.

Benefits:

- You might learn more about yourself by participating in this study. You might have a better understanding of co-teaching strategies and reflection on which you rely on most.

Duration:

It will take about 8 minutes to complete the questions.

Statement of Confidentiality:

The survey does not ask for any information that would identify who the responses belong to. Therefore, your responses are recorded anonymously. If this research is published, no information that would identify you will be included since your name is in no way linked to your responses.

All survey responses that we receive will be treated confidentially. However, given that the surveys can be completed from any computer (e.g., personal, work, school), we are unable to guarantee the security of the computer on which you choose to enter your responses. As a participant in our study, we want you to be aware that certain "key logging" software programs exist that can be used to track or capture data that you enter and/or websites that you visit.

Right to Ask Questions:

The researchers conducting this study are Krystie Seese and advisor, Shannon Grave. You may ask any questions you have now. If you later have questions, concerns, or complaints about the research please contact Krystie Seese at Krystie.Seese@ndus.edu or Shannon Grave at Shannon.Grave@und.edu.

If you have questions regarding your rights as a research subject, you may contact The University of North Dakota Institutional Review Board at (701) 777-4279 or UND.irm@UND.edu. You may contact the UND IRB with problems, complaints, or concerns about the research. Please contact the UND IRB if you cannot reach research staff, or you wish to talk with someone who is an informed individual who is independent of the research team.

General information about being a research subject can be found on the Institutional Review Board website "Information for Research Participants" <http://und.edu/research/resources/human-subjects/research-participants.html>

Compensation:

You will not receive compensation for your participation.

Voluntary Participation:

You do not have to participate in this research. You can stop your participation at any time. You may refuse to participate or choose to discontinue participation at any time without losing any benefits to which you are otherwise entitled.

You do not have to answer any questions you do not want to answer.

You must be 18 years of age older to participate in this research study.

Completion and return of the *[survey, or participant in the interview/focus group]* implies that you have read the information in this form and consent to participate in the research.

Please keep this form for your records or future reference.

Appendix M

University of North Dakota IRB Approval Letter



UND.edu

Division of Research & Economic

Development

Office of Research Compliance & Ethics

Principal Investigator: Shannon Denise Grave

Protocol Title: Faculty Experiences in Implementing Co-Teaching Strategies

Protocol Number: IRB0004956

Protocol Review Level: Exempt 2

Approval Date: 06/02/2022

Expiration Date: 06/01/2025

The application form and all included documentation for the above-referenced project have been reviewed and approved via the procedures of the University of North Dakota Institutional Review Board.

If you need to make changes to your research, you must submit an amendment to the IRB for review and approval. No changes to approved research may take place without prior IRB approval.

This project has been approved for 3 years, as permitted by UND IRB policies for exempt research. You have approval for this project through the above-listed expiration date. When this research is completed, please submit a termination request to the IRB.

Sincerely,

Michelle L. Bowles, M.P.A., CIP

she/her/hers

Director of Research Assurance & Ethics

Office of Research Compliance & Ethics

Division of Research & Economic Development

University of North Dakota

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References

- About IDEA*. Individuals with Disabilities Education Act. (2022, October 11). Retrieved October 27, 2022, from <https://sites.ed.gov/idea/about-idea/>
- Arnold, J., Mundy, B. (2020). Praxis Pedagogy in Teacher Education. *Smart Learn Environ.* 7, 8.
- Ashby, C. (2012). Disability studies and inclusive teacher preparation: A socially just path for teacher education. *Research & Practice for Persons with Severe Disabilities*, 37(2), 89-99.
- Bacharach, N., Washut Heck, T., & Dahlberg, K. (2008). Co-Teaching in Higher Education. *Journal of College Teaching & Learning*, 5(3).
- Carter, N., Prater, M. A., Jackson, A., & Marchant, M. (2009). Educators' perceptions of collaborative planning processes for students with disabilities. *Preventing School Failure*, 54, 60-70.
- Caudill, A., Cox, J., & Blackley, A. (2019, April 18). Conflict resolution in co-teaching. *Ready*. Retrieved October 31, 2022, from <https://www.readysetcoteach.com/conflict-resolution-in-co-teaching/>
- Christensen, M. (2021). How the co-teaching model benefits children. *Julie Billiart schools: Helping K-8 students with learning differences in Akron, Lyndhurst, and Westlake, Ohio*. Retrieved February 21, 2022, from <https://www.juliebilliartschool.org/the-latest/blog/2021/02/18/how-the-co-teaching-model-benefits-children>
- Chernek, V. (2018, April 30). Learning ally: What does exemplary co-teaching look like in today's progressive classrooms? *Learning Ally - Together It's Possible*. Retrieved November 23, 2022, from <https://learningally.org/Solutions-for-School/Educator->

[Blog/what-does-exemplary-co-teaching-look-like-in-todays-progressive-classrooms#close](#)

- Cole, Cassandra & Waldron, Nancy & Majd, Massoumeh. (2004). Academic Progress of Students Across Inclusive and Traditional Settings. *Mental retardation*, 42. 136-44. 10.1352/0047-6765(2004)42<136:APOSAI>2.0.CO;2.
- Colson, T., & Smothers, M. (2018). FAPE, LRE, and Related Laws: Implications for Inclusion and Co-teaching. *Kentucky Teacher Education Journal: The Journal of the Teacher Education Division of the Kentucky Council for Exceptional Children*, 5(1).
- Conderman, G., & Liberty, L. (2018). Establishing Parity in Middle and Secondary Co-taught Classrooms. *Clearing House*, 91(6), 222–228. <https://doi-org.ezproxy.library.und.edu/10.1080/00098655.2018.1524358>
- Continental Press, (2022). Using the 6 models of co-teaching to maximize student learning. *Continental Educational Publisher*. (2022, December 6). Retrieved January 29, 2023, from <https://www.continentalpress.com/blog/explore-the-6-models-of-co-teaching/>
- Cook, B. G. (2001). A comparison of teachers' attitudes towards their included students with mild and severe disabilities. *The Journal of Special Education*, 34, 203–213.
- Cook, B. G. (2004). Inclusive teachers' attitudes toward their students with disabilities: A replication and extension. *The Elementary School Journal*, 104, 307–320.
- Cook, B. G., Cameron, D. L., & Tankersley, M. (2007). Inclusive teachers' attitudinal ratings of their students with disabilities. *The Journal of Special Education*, 40(4), 230–238. <https://doi.org/10.1177/00224669070400040401>
- Cook, L. & Friend, M. (1995). Co-teaching: Guidelines for creating effective practices. *Focus on Exceptional Children*, 28(3), 1-17.

- Cooper, T. (2020, November 29). It's time to address teacher bias against Special Education Students. *The Educators Room*. Retrieved October 27, 2022, from <https://theeducatorsroom.com/time-address-teacher-bias-special-education-students/#:~:text=But%20let%20a%20child%20mention%20that%20they%20have,on%20IEP%20because%20they%20%27appear%27%20to%20do%20fine.>
- Cushman, S. (2004). What is co-teaching? Retrieved from https://uk.sagepub.com/sites/default/files/upm-binaries/26099_Villa_Guide_to_Co_Teaching_Chapter_1.pdf
- Darling-Hammond, L., & Baratz-Snowden, J. (2007). A good teacher in every classroom: Preparing the highly qualified teachers our children deserve. *Educational Horizons*, 85, 111-132.
- Dignath, C., Rimm-Kaufman, S., van Ewijk, R. et al. (2022). Teacher's Beliefs About Inclusive Education and Insights on What Contributes to Those Beliefs: A Meta-analytical Study. *Educational Psychology Review* 34.
- Di Maggio, I., Ginevra, M., Nota, L., (2021). The Role of Psychological Capital in Human Service Professionals' Work Experiences. *European Journal of Investigating in Health, Psychology and Education* 11(3), 639-648.
- Faraclas, K. L. (2018). A professional development training model for improving co-teaching performance. *International Journal of Special Education*, 33(3), 524–540.
- Fitzell, S. G. (2017, June 14). Coaching co-teachers to successful partnerships. *Corwin Connect*. Retrieved from <https://corwin-connect.com/2017/06/coaching-co-teachers-successful-partnerships/#:~:text=Coaching%20Co->

Teachers%20to%20Successful%20Partnerships%201%20Teaching%20is,relationshi
p%20with.%20...%203%20Never%20break%20trust.%20

- Friend, M. (2008). Co-teaching: A simple solution that isn't simple after all. *Journal of Curriculum and Instruction*, 2(2). www.joci.ecu.edu/index.php/JoCI/article/viewArticle/17
- Friend, M., & Barron, T. (2016). *Educational Practice & Reform*, 2.
- Friend, M., Cook, L., Hurley-Chamberlain, D., & Shamberger, C., (2010). Co-Teaching: An Illustration of the Complexity of Collaboration in Special Education, *Journal of Educational and Psychological Consultation*, 20:1, 9-27, DOI: [10.1080/10474410903535380](https://doi.org/10.1080/10474410903535380)
- Galiatsos, S., Kruse, L., & Whittaker, M. (2019). Forward Together: Helping Educators Unlock the Power of Students Who Learn Differently. *National Center for Learning Disabilities*.
- Guise, M., Hegg, S., & Robbins, A. (2021). Learning together through Coteaching Coaching: A model of support for Coteaching Pairs in clinical practice. *Teaching and Teacher Education*, 100, 103278. <https://doi.org/10.1016/j.tate.2021.103278>
- Hamilton-Jones, B., & Vail, C. O. (2013). Preparing special educators for collaboration in the classroom: Pre-service teachers' beliefs and perspectives. *International Journal of Special Education*, 281(1), 56-68.
- Haneda, M., Teemant, A., & Sherman, B. (2017). Instructional coaching through dialogic interaction: Helping a teacher to become agentive in her practice. *Language And Education*, 31(1), 46e64. <https://doi.org/10.1080/09500782.2016.1230127>

- Hanover Research. (2012, March). The effectiveness of the co-teaching model inclusion material. Retrieved February 21, 2022, from <https://www.ousd.org/cms/lib/CA01001176/Centricity/Shared/The%20Effectiveness%20of%20the%20Co-Teaching%20Model-Inclusion%20Material.pdf>
- Harter, A. and Jacobi, L. (2018). “Experimenting with our Education” or Enhancing It? Co-Teaching from the Perspective of Students. *Inquiry in education*: Vol. 10: Issue. 2, Article 4. Retrieved from: <https://digitalcommons.nl.edu/ie/vol10/iss2/4>
- Hattie, J. (2019). Visible learning for teachers: Maximizing Impact on learning. *Routledge*.
- IDEA*. Individuals with Disabilities Education Act. (2020, November 24). Retrieved November 19, 2021, from <https://sites.ed.gov/idea/about-idea/#IDEA-Purpose>.
- King-Sears, M., Stefanidis, A., Berkeley, V., (2021). Does Co-Teaching Improve Academic Achievement for Students with Disabilities? A Meta-Analysis. *Educational Research Review*, 34. <https://doi.org/10.1016/j.edurev.2021.100405>.
- Knight J. (2007). *Instructional coaching: A partnership approach to improving instruction*. Thousand Oaks, CA: Corwin Press.
- Knight, J. (2009). *Instructional coaching: A partnership approach to improving instruction*. *Hawker Brownlow*.
- Knight, J. (2011). *Unmistakable impact: A partnership approach for dramatically improving instruction*. Corwin.
- Kumar, D., & Singh, M. (2021). Collaborative Teaching and Teachers Role in an Effective Approach to Inclusive Education. *International Research Journal of Engineering and Technology*. <https://www.researchgate.net/publication/354269465>

- Lee, F. L. M., Yeung, A. S., Tracey, D., & Barker, K. (2015). Inclusion of children with special needs in early childhood education: What teacher characteristics matter. *Topics in Early Childhood Special Education, 35*(2), 79–88.
<https://doi.org/10.1177/0271121414566014>
- Literacy Information and Communication System (LINCS). (2015). Mentoring Guide for Teacher Induction: Guidance for Mentors and Beginning Teachers. *American Institute for Research*.
- Macalady, J. (2021). The Impact of Personality Type on Co-Teaching Pairs (dissertation). ProQuest.
- Macfarlane, K. & Woolfson, L. M. (2013). Teacher attitudes and behavior toward the inclusion of children with social, emotional, and behavioral difficulties in mainstream schools: An application of the theory of planned behavior. *Teaching and Teacher Education, 29*, 46-52.
- Mastropieri, M. A., Scruggs, T. E., Graetz, J., Norland, J., Gardizi, W., & McDuffie, K. (2005). Case Studies in Co-Teaching in the Content Areas Successes, Failures, and Challenges. *Intervention in School and Clinic, 40*(5), 260-270.
- McKenzie, R. G. 2009. A national survey of pre-service preparation for collaboration. *Teacher Education and Special Education: The Journal of the Teacher Education Division of the Council for Exceptional Children 32* (4): 379–93.
- McLeskey, J., & Waldron, N. L. (2011). Educational programs for elementary students with learning disabilities: Can they be both effective and inclusive? *Learning Disabilities Research & Practice, 26*(1), 48–57. doi:10.1111/j.1540- 5826.2010.00324.x

McLeskey, J., Landers, E., Hoppey, D., & Williamson, P. (2011). Learning disabilities and the LRE mandate. An examination of national and state trends. *Learning Disabilities Research and Practice, 26*(2), 60-66.

Mitchell, C. (2019). Most classroom teachers feel unprepared to support students with disabilities. *Education Week*. Retrieved January 8, 2023, from <https://www.edweek.org/teaching-learning/most-classroom-teachers-feel-unprepared-to-support-students-with-disabilities/2019/05>

Morin, A. (2022, August 17). *Push-in vs. pull-out in special education*. Understood. Retrieved March 23, 2023, from <https://www.understood.org/en/articles/the-difference-between-push-in-and-pull-out-services>

Murawski, W. W. & Lochner, W. W. (2010). Observing co-teaching: What to ask for, look for, and listen for. *Intervention in School and Clinic, 1*-10.

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

Murdock, L., Finneran, D., & Theve, K. (2015). Co-Teaching to Reach Every Learner. *Educational Leadership, 73*(4), 42-47.

Murley, L. D., Stobaugh, R. R., & Evans, C. S. (2014). Introducing the co-teaching model in teacher education clinical practice. *Educational Renaissance, 3*(1), 7–20. <https://doi.org/10.33499/edren.v3i1.77>

National Center for Education Statistics. (2019). Children and youth with disabilities. Retrieved from https://nces.ed.gov/programs/coe/indicator_cgg.asp.

- National Center for Education Statistics. (2022). Students with Disabilities. *Condition of Education*. U.S. Department of Education, Institute of Education Sciences. Retrieved July 6, 2022, from <https://nces.ed.gov/programs/coe/indicator/cgg>.
- National Center for Learning Disabilities (NCLD). (2020). Significant Disproportionality in Special Education: Current Trends and Actions for Impact. https://www.nclld.org/wp-content/uploads/2020/10/2020-NCLD-Disproportionality_Trends-and-Actions-for-Impact_FINAL-1.pdf
- Nierengarten, G. E. (2013). Supporting co-teaching teams in high schools: Twenty research-based practices. *American Secondary Education*, 42(1), 73-83.
- O'Scanaill, M. (2021, April 22). The importance of co-teaching in 2021. *Dyknow*. Retrieved February 21, 2022, from <https://www.dyknow.com/blog/the-importance-of-co-teaching-in-2021/>
- Peery, A. (2017). A Brief History of Co-teaching. *Cult of Pedagogy*.
- Pratt, S., & Imbody, S., & Wolf, L., & Patterson, A., (2016). Co-planning in Co-teaching: A Practical Solution. *Intervention in School and Clinic*. 52. 10.1177/1053451216659474.
- Rabin, C. (2019). Co-teaching: Collaborative and caring teacher preparation. *Journal of Teacher Education*, 71(1), 135–147. <https://doi.org/10.1177/0022487119872696>
- Ronfeldt, M., Farmer, S. McQueen, K., & Grissom, J. (2015). Teacher collaboration in instructional teams and student achievement. *American Educational Research Journal*, 52(3), 475-514.

- Rosenzweig, K. (2009). Are today's general education teachers prepared to meet the needs of their inclusive students? *Northeast Educational Research Association (NERA) Annual Conference*, University of Connecticut, Storrs, CT
- Rufo, J. M., & Causton, J. (2022). Reimagining special education: Using inclusion as a framework to build equity and support all students. Paul H. Brookes Publishing Co.
- Salas, R. (2022). The Block Schedule System: 7 Pros and 3 Cons. *Education Advanced, inc.*. Retrieved March 23, 2023, from <https://educationadvanced.com/resources/blog/the-block-schedule-system-7-pros-and-3-cons/>
- Saskatchewan Ministry of Education. (2015). Actualizing a Needs-Based Approach. <https://publications.saskatchewan.ca/#/products/33546>
- Scruggs, T. E., Mastropieri, M. A., & McDuffie, K. A. (2007). Co-teaching in inclusive classrooms: A meta-synthesis of qualitative research. *Exceptional Children*, 73, 392–416. doi:10.4135/9781483346243.n80
- S. E. R. C. (2017, January 30). Six approaches to co-teaching. *State Education Resource Center*. Retrieved November 12, 2021, from <https://ctserc.org/component/k2/item/50-six-approaches-to-co-teaching>.
- Siegemund, S., & Johannsen, S. (2021). Finding a role in class: A mixed methods study of prospective teachers' beliefs towards co-teaching in inclusive classes. *International Journal of Whole Schooling*, 17(2), 38+.
https://link.gale.com/apps/doc/A688764856/PROF?u=ndacad_58202zund&sid=bookmark-PROF&xid=10dfecf9

- Sims, E. (2008). Sharing command of the co-teaching ship: How to play nicely with others. *The English Journal*, 97(5), 658-63
- Sirkko, R., Takala, M., & Wickman, K., (2018). Co-Teaching in Northern Rural Finnish Schools, *Education in the North*, 251(1-2), pp. 217-237.
- Sparks, S. D. (2022, July 28). Co-teaching: Valuable but hard to get right. *Education Week*. Retrieved February 4, 2023, from <https://www.edweek.org/teaching-learning/co-teaching-valuable-but-hard-to-get-right/2022/07>
- Stanford-Taylor, C. (2020). Co-Teaching - Competency One Designing Physical Space and Functional Structures. *Wisconsin Department of Public Instruction*.
- Stein, E. (2019, November 24). How to create fruitful co-teaching partnerships. *MiddleWeb*. Retrieved October 26, 2022, from <https://www.middleweb.com/17917/real-coteaching-partnerships/>
- Sundqvist, C., Björk-Åman, C., & Ström, K. (2021) Special teachers and the use of co-teaching in Swedish-speaking schools in Finland, *Education Inquiry*, 12:2, 111-126, DOI: [10.1080/20004508.2020.1793490](https://doi.org/10.1080/20004508.2020.1793490)
- Sweigart, C.A., & Landrum, T. J. (2015). The impact of number of adults on instruction: Implications for co-teaching. *Preventing School Failure*, 59(1), 22-29.
- Turnbull, A. P., Turnbull, H. R., & Wehmeyer, M. L. (2010). *Exceptional lives: Special education in today's schools* (6th ed.). Merrill.
- Underwood, J. (2018). Under the Law: Defining the least restrictive environment. *Phi Delta Kappan*, 100(3), 66–67. <https://doi.org/10.1177/0031721718808270>
- University of Washington. (2022). What is the difference between accommodation and modification for a student with a disability? | *DO-IT*. Retrieved March 23, 2023, from

<https://www.washington.edu/doiit/what-difference-between-accommodation-and-modification-student-disability>

U.S. Department of Education. (2011). National report on the condition of education.

Retrieved from <http://nces.ed.gov/pubs2011/2011033.pdf>

U.S. Department of Education. (2010). Free appropriate public education under Section 504.

Home. Retrieved January 28, 2023, from

<https://www2.ed.gov/about/offices/list/ocr/docs/edlite-FAPE504.html>

Valamis. (2022, October 4). 8 adult learning principles: Use them in your training. *Valamis*.

Retrieved February 5, 2023, from <https://www.valamis.com/hub/adult-learning-principles>

Vaughn, S.R., & Bos, C.S. (2015). Strategies for teaching students with learning and

behavior problems (8th ed.). Upper Saddle River, NJ: Pearson.

Villa, R. A., Thousand, J. S. and Nevin, A. I. 2008. A guide to co-teaching: Practical tips for facilitating student learning, Thousand Oaks, CA: Corwin.

Wagner, M., Newman, L., Cameto, R., Levine, P. and Garza, N. (2006). An Overview of

Findings From Wave 2 of the National Longitudinal Transition Study-2 (NLTS2).

(NCSE 2006-3004). Menlo Park, CA: SRI International.

Walsh, J. (2012). Co-Teaching as a School System Strategy for Continuous

Improvement. *Preventing School Failure*, 56(1), 29–36. [https://doi-](https://doi-org.ezproxy.library.und.edu/10.1080/1045988X.2011.555792)

[org.ezproxy.library.und.edu/10.1080/1045988X.2011.555792](https://doi-org.ezproxy.library.und.edu/10.1080/1045988X.2011.555792)

Wenzlaff, T., Berak, L., Wieseman, K., Monroe-Baillargeon, A., Bacharach, N., &

Bradfield-Kreider, P., (2002). Walking our talk as educators: Teaming as a best

practice. In E. Guyton & J, Ranier (Eds). *Research on Meeting and Using Standards in the Preparation of Teachers*. (pp.11-24). Dubuque, IA: Kendall-Hunt Publishing.

WOSH Specialist Training Supplemental Module, (n.d.). How Adults Learn Best. Factsheet

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