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The Impact of Co-Teaching on Students Receiving Special Education Services

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ED 590: Conducting Research and Completing the Capstone – 037

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Abstract

Delivering special education services has evolved as research continues to support the importance of an inclusive classroom. The development of the No Child Left Behind Act of 2001 required that all students receiving special education have the same access and opportunities to the same high academic standards as students without disadvantaged backgrounds such as race, disability, and socioeconomic status (U.S. Department of Education, 2000). Considering the requirements to keep all students in their natural learning environments as much as possible, innovative ways to meet the individual needs of each student continue to progress. Co-teaching is a service delivery model which includes one general and special education teacher working in unison to deliver core curriculum in the classroom setting. Not only does this service delivery model meet the legally binding requirements of an Individual Education Plan (IEP), but it also honors the least restrictive environment recommendations. While co-teaching sounds appealing to most, there are many components to consider which directly impact the overall success of the teaching model. A multitude of research have analyzed the effectiveness, potential barriers, and overall impact co-teaching has on teaching staff and students. While the research studies painted a picture of what works and what does not work with co-teaching, the direct student impact on academic achievement and behavioral success remains in question. The results suggested when front-end foundational supports are established prior to implementation, co-teaching can have a positive impact on student achievement.

Keywords: co-teaching, Individual Education Plan (IEP), least restrictive environment, No Child Left Behind Act of 2001

The Impact of Co-Teaching for Students Receiving Special Education Services

Chapter One: Introduction

Traditional classrooms typically involve one teacher instructing anywhere from 15 to upwards of 30 students, including students with exceptionalities. Meeting each student's individual needs can feel like an overwhelming and nearly impossible task. General education teachers typically lack proper training or knowledge on teaching students with disabilities which can leave them feeling unsure how to move forward most effectively. Co-teaching is an instructional model incorporating a special education teacher inside of the classroom to provide the guidance and knowledge to not only support the students with disabilities but to teach all the students in the classroom setting together as a team.

The evolution of special education and the idea of inclusion has come a long way since the days when students with profound disabilities were institutionalized instead of being in schools with their peers. Around the early 1970s, parents and advocates started fighting for equal rights for students with exceptionalities to receive the same free education other students were receiving. In 1975, the Education for All Handicapped Children Act (EHA) was enacted to guarantee and enforce that all children receive a free and appropriate education (Rotatori et al., 2011). As students with disabilities were allowed to be in schools with their peers, the instructional strategies with these students continued to evolve. In 1997, EHA was completely revised and renamed the Individuals with Disabilities Education Act (IDEA) (Fischer, 2007). This was groundbreaking in the world of special education. Processes were developed to advocate for what students with disabilities needed in the classroom and hold schools accountable for providing it. IDEA made it possible for students with disabilities to be included

in the classroom and receive services written in their individual education plans (IEPs) within the school and classroom setting (Rotatori et al., 2011).

Historically, special education services have primarily been provided outside of the general education classroom setting. Students receiving these services were pulled out of their classrooms multiple times throughout the day to receive their services and would return without an awareness of what took place in their classroom while they were gone. Although students were receiving the services required to meet their individual needs, they were missing out on critical experiences within their natural learning environment with same-age non-disabled peers. As new strategies are developed to change the way special education services are delivered, there has been a push to keep students in their classrooms and provide services inside of the general education classroom setting. With an inclusive classroom in mind, educators were left wondering what this would look like in the classroom. How would the two teachers in the classroom work together to serve all students and not just the students receiving special education services? How could they use their different areas of expertise to provide each other support as well?

Co-teaching is an instructional model that has been developed and implemented in many schools worldwide. Co-teaching is a strategy incorporating a general and special education teacher in the same classroom, teaching curriculum together. This instructional model not only increases collaboration between teachers but also supports the least restrictive environment while giving students with disabilities access to grade-level core curriculum. According to the No Child Left Behind Act of 2001, all students are required to have access to the general education curriculum and are taught by highly qualified teachers (Friend et al., 2010). Co-teaching is an effective strategy to provide all students with the differentiated and high-quality education they deserve.

Importance of Research

According to the Individuals with Disabilities Act (IDEA), students with disabilities cannot be removed from the general education classroom setting and away from non-disabled peers unless satisfactory accommodations cannot be achieved within the classroom setting (Fischer, 2007). Even with this requirement in place, according to the U.S. Department of Education, 13.8% of students ages six to twenty-one receive special education services less than 40% of the time in the general education classroom, and students identified as having an intellectual disability or multiple disabilities receive services outside of the general education classroom 80% of the time (Oh-Young & Filler, 2015). These statistics are alarmingly high when it comes to the least restrictive environment requirements and the push for an inclusive classroom. The importance of the research into the effectiveness of the co-teaching instructional model supports whether students receiving special education services in the general education classroom can have a high level of achievement both academically and behaviorally.

The purpose and overall intent of co-teaching are to provide students with disabilities access to the general education curriculum and have these students receive the specialized instructional strategies to meet their individual needs within the classroom setting (Friend et al., 2010). A typical classroom has a teacher to student ratio of approximately one teacher to 25 students, while the co-teaching model increases the teacher-to-student ratio to two teachers to 25 students (Friend et al., 2010). This provides students with more individualized support and allows teachers to expand their instructional strategies to differentiate their instruction more effectively. Although this instructional model has the potential to increase exposure and develop an inclusive environment for all students, it also requires a great deal of support and partnership from the teachers implementing it. Previous research studies discussed the preference teachers

have regarding co-teaching as an option rather than a requirement, along with the flexibility to have a say in who their co-teaching partner is (Friend et al., 2010). Districts who already implemented co-teaching reported co-planning time, personality differences, roles and responsibilities, and lack of training as the biggest barriers to a successful implementation (Friend et al., 2010).

Despite the challenges staff can experience with co-teaching, recent studies supported the preference from students with this model. According to a survey conducted where primary and secondary aged students with and without disabilities were asked for feedback on the overall experience, most of the learners surveyed indicated they preferred being in a co-taught class and received higher grades in this type of classroom compared to a general classroom with one teacher (Friend et al., 2010). This same survey also indicated students felt they were held to a higher standard and were more supported in this type of classroom environment (Friend et al., 2010). Given both the benefits and barriers of a co-taught classroom, the research conducted has been critical to improve the overall experience, increase instructional effectiveness, and provide the necessary tools to make the implementation successful.

Scope of Research

This in-depth research study includes a variety of qualitative, quantitative, and mixed-methods studies focusing on co-teaching as a form of special education service delivery. There are three themes included in this research study. The first theme examines the effectiveness of co-teaching. This includes specific components that impact the overall effect such as the most used teaching approaches and the quality of modifications/accommodations in this setting. The second theme reviews common barriers of co-teaching. Throughout all the research surrounding co-teaching, common barriers continued to surface which prevented a positive outcome for both

teachers and students. This information will help districts combat these barriers and develop a more established foundation before implementing this unique instructional strategy. Lastly, the third and final theme examines the impact co-teaching has on students both academically and behaviorally. This information can help staff and administrators determine if the efforts required to implement this strategy are worth the overall impact it has on students directly.

Research Question

In light of what is known about differentiated instruction, what impact does co-teaching have on the academic achievement and behavioral needs of students receiving special education services? Furthermore, how can using the co-teaching model provide an appropriate level of differentiation to effectively meet the needs of all students?

Definition of Terms

Co-teaching is a partnership between a general and special education teacher or another specialist teaching content together to meet the individual needs of learners with disabilities or other diverse needs, such as English language learners. Co-teaching intends to provide access to the general education curriculum to diverse learners (Friend et al., 2010).

Individual Education Plan (IEP) is a written, legally binding document between a school and parents which maps out an individual education plan for a student receiving special education services. This document must be written on an annual basis and is developed by the established IEP team members (Bateman & Cline, 2016).

Least Restrictive Environment requires students with disabilities to be educated along with same-age, non-disabled peers within their natural learning environment as much as possible. This includes the use of accommodations and modifications within the classroom as described in

the IEP. Only when this cannot be done can the student receive more intensive services outside of the classroom setting (Bateman & Cline, 2016).

The No Child Left Behind Act of 2001 is a law which was designed to protect disadvantaged students from not having the same access and opportunities to the same high academic standards as students without disadvantaged backgrounds, such as race, disability, and socioeconomic status (U.S. Department of Education, 2000).

Summary

Based on the preliminary findings discussed in this chapter, there are many appealing components to co-teaching. The most important is that students with disabilities have regular access to the general education curriculum and are taught alongside same-age non-disabled peers which is a requirement of providing the least restrictive environment for these diverse learners. Also, having two trained and highly qualified teachers in one classroom gives more opportunities for teachers to provide support and differentiation to all students and the flexibility to expand with teaching strategies during whole and small group instruction. This can increase engagement, as well as a sense of community within the classroom.

Although co-taught classrooms can improve the academic achievement of all students, there is a component to this teaching strategy that impacts the teachers and districts involved. There is a significant amount of front-end training and preparation to improve the overall experience. This is a potential barrier for most districts to successfully implement co-teaching into schools with the most impactful results. While the delivery of this method may differ from school to school, this left the author to answer the question, in light of what is known about differentiated instruction, what impact does co-teaching have on the academic achievement and behavioral needs of students receiving special education services? The following literature

review uses qualitative and quantitative research studies to examine both the barriers and benefits to co-teaching. Common barriers from the research studies included shared responsibilities, defined collaborative planning time, personality conflict between the two teachers, and lack of training. Benefits from the research studies included increased direct support, an inclusive classroom environment, an increase in student engagement, and a decrease in negative behaviors. While there is a significant amount of research highlighting both benefits and barriers, it is important to make mention that more research is needed to truly understand the direct academic achievement for the diverse learners discussed.

Chapter Two: Literature Review

As discussed previously, students receiving special education services must receive services in the least restrictive environment possible and have access to grade-level curriculum. Even with the least restrictive environment requirements in place, historically there has been a common practice of pulling students out of their natural learning environment to receive services. This segregation can leave a negative impact on both academic and behavioral achievement. The following literature review uses quantitative, qualitative, and mix-methods to examine the effectiveness of co-teaching, potential barriers, and the overall impact co-teaching has on academic and behavioral achievement.

The first theme of the literature review examined the effectiveness of co-teaching. This included a review of the six co-teaching strategies, teacher and student perceptions of co-teaching, and the quality of modifications in a co-teaching environment. Iacono et al. (2021) and Keeley et al. (2017) both examined the six co-teaching approaches and compared student and teacher feedback of each of the approaches. Although most schools use the six co-teaching approaches, some schools experiment with other instructional strategies similar to a co-teaching

experience. Weiss et al. (2020) implemented a three-element co-teaching model and the overall effectiveness of the newly developed approach. This study compared the three-element model to the six co-teaching approaches, and which was more effective. To implement co-teaching successfully and meet the needs of students with disabilities, Strogilos et al. (2018) examined the quality of the curriculum in this unique environment as well as modifications. Co-teaching is not an instructional model that can be implemented without the support of administrators. Lastly, Wherfel et al. (2021) compared educational tools and assessments to make appropriate and informed instructional decisions.

The second theme analyzes common barriers that were identified in nearly every research study found on co-teaching. Shin et al. (2015) and King-Sears et al. (2018) both placed a significant amount of focus on the importance of co-planning time, collaboration between teaching partners, and communication. However, King-Sears et al. (2018) also identified the importance of the co-teaching relationship between the two teachers. Similar to King-Sears et al. (2018), Krammer et al. (2017) also highlighted the critical components of a strong partnership and shared responsibility. In addition to co-planning time, collaboration, partnerships, and communication; lack of training was among the other barriers identified by the remaining studies conducted by Casserly and Padden (2017), Gurgur and Uzunur (2011), and Sinclair et al. (2018).

The third theme focuses on the direct student impact, both academically and behaviorally. The first study conducted by Lehane and Senior (2019) specifically addressed student impact in mathematics. Two studies both conducted by a similar group of researchers, Wexler et al. (2018) and Wexler et al. (2022), dove into reading comprehension skills in a co-taught classroom. The first study by Wexler et al. (2018) took place without professional development or co-teaching training, while the second study by Wexler et al. (2022) was conducted after professional

development occurred. Both studies resulted in completely different outcomes, highlighting the importance of training in co-teaching. Lastly, Sweigart and Landrum (2014) focused on behavior and engagement in a co-taught classroom.

Review of the Proposed Problem

Students with disabilities receiving special education services are being pulled out of their natural learning environment to receive services at a very high rate. This segregates this population of students and reduces their opportunity for exposure to grade-level curriculum as well as learning alongside same-age non-disabled peers. Not only does this impact the academic achievement rate, but it can also impact students socially. Keeping the least restrictive environment in mind, what inclusive teaching strategies can be implemented to provide services and keep students in their natural learning environment? While some schools are providing push-in services, this strategy for service delivery does not always include a core curriculum. Co-teaching is one instructional strategy that can be used to meet both requirements for not only students with disabilities, but all the students in the classroom. Co-teaching is also designed to provide extra support to the general education teacher who does not have the same level of expertise in disabilities as the special education teacher.

Review of the Research Importance

Co-teaching provides opportunities for students receiving special education services to stay in their classroom to receive services and increase their exposure to grade-level curriculum. Co-teaching impacts students involved as well as the teachers providing the instruction. There is a level of responsibility from the teachers that can directly influence the effectiveness and impact of this instructional model. Researching this topic is critical to improve the overall experience,

increase instructional effectiveness, and provide the necessary tools to make the implementation successful.

Effectiveness of Co-Teaching

There is a significant number of considerations to examine when determining if co-teaching is something to implement in schools. How can co-teaching meet the needs of each student? How can modifications and adaptations be used in this environment? What does it look like? What are the perceptions from the students and teachers involved? What is required from the administration to implement this teaching strategy? The following section examines these questions and provides a research-based analysis of the most effective components of co-teaching to consider.

Placing two teachers into a classroom and expecting them to successfully co-teach core curriculum in unison without proper training typically does not lead to a successful outcome. Co-teaching is a very deliberate teaching method that has six specific approaches. The study “A Systematized Review of Co-Teaching Efficacy in Enhancing Inclusive Education for Students with Disability” dove into the six approaches to determine which of the six was the most and least effective (Iacono et al., 2021). The six approaches include one teach/one observe, station teaching, parallel teaching, alternative teaching, team teaching, and one teach/one assist. Using these six approaches allows the teachers to meet the individualized education plan (IEP) needs at the same time as meeting the needs of the other learners in the same classroom (Friend et al., 2010). The mixed-methods approach of this study reviewed results from 21 studies which included a combination of both qualitative and quantitative components. Of the 21 studies, 17 of the studies used were conducted in the United States, and the remaining four were conducted in European countries. The research aimed to examine each of the six co-teaching approaches in

different settings and not at the same schools or age range. This made it difficult to identify common trends in specific grade-levels or age ranges, but the studies included both primary and secondary ages. Students with various mild to moderate disabilities were included in the studies. Out of the six approaches, team teaching, and one teach/one assist were the two approaches identified as the most used in the co-taught environments; the least used included one teach/one observe and alternative teaching. An interesting result from the study indicated that although one teach/one assist was one of the most common approaches used, it was identified as one of the least effective (Iacono et al., 2021). Limitations of the study included language barriers and a lack of student outcome focus. Overall, this study had mixed results and did not produce as clear of results as anticipated. The research did not conclusively indicate one specific approach was the most successful of the six.

Like Iacono et al. (2021), the study “Evaluation of the Student Experience in the Co-Taught Classroom” also examined the most used co-teaching approaches and the overall effectiveness of the approaches (Keeley et al., 2017). This qualitative study was different from the previously discussed study because it used direct feedback from teachers and students rather than data from previously administered studies. Keeley et al. (2017) focused on the perceptions from participants in a co-taught classroom environment over six weeks. The information was collected via student and teacher surveys at the end of the six weeks. This study was conducted with middle school classrooms and included various disabilities in the classrooms surveyed. The middle school sampling had not been co-teaching prior to the study beginning. The participants had six weeks to implement co-teaching and use all six co-teaching approaches. The study surveyed 122 students and five co-teaching teams were included in the study; specific limitations were not identified. However, the information collected was based on student and teacher

perceptions only. This information does not factually identify the overall effectiveness of any of the co-teaching approaches. It simply suggests the preferred approach by both teachers and students. Students identified station teaching as the most preferred approach due to the variety it offers. This approach gave students movement and change during instructional times which improved overall engagement. Students also indicated station teaching provided them with increased support due to the student/teacher ratio reduction. As Iacono et al. (2021) previously indicated, the one teach/one assist approach was identified as the least effective. The current study by Keeley et al. (2017) had the same results. The teachers' perception had similar preferences with station teaching indicating student behavior was decreased when this approach was used. Teacher feedback also indicated the one teach/one assist approach was the weakest in effectiveness. These findings indicated consistency with previous research which also indicated the overall effect can be improved by additional support to teachers during the co-teaching implementation process.

Although co-teaching can be challenging to implement without proper support in place, when it is done effectively, it can have a positive impact on students with and without disabilities. Unlike the previous two studies, “An Exploratory Study of an Instructional Model for Co-Teaching” explored a three-element co-teaching instructional model (Weiss et al., 2020). This qualitative study steered away from the traditional six approaches to co-teaching and focused on three main elements. One element referred to the quality of general education instruction, the next element referred to making the general curriculum accessible, and the last element referred to specially designed instruction (SDI) (Weiss et al., 2020). The study explained the purpose of the three-element model is to identify the instructional components of a co-teaching classroom to provide clear roles between the teachers and an overall guide for

implementation (Weiss et al., 2020). This research study used a multiple case study design to collect data and sources which included classroom observations, observer field notes, and teacher interviews.

The study took place in a rural high school in a mid-Atlantic state which included 1300 students, grades nine through twelve. The participants included three co-teaching teams in the high school the teams included: an English, math, and social studies team. There were a combined 64 students between all three teams and out of the 64 students, 17 were identified as having disabilities. The study addressed three questions in each of the teams and three-element teaching models: what does co-teaching look like in secondary classrooms, how do co-teachers understand and implement the three-element model of co-teaching, and what factors affect the implementation (Weiss et al., 2020).

Results of the study indicated the first element for all three teams had a large percentage of independent practice and a smaller percentage of guided practice. In the second element, the guided practice increased, and the independent practice decreased. Element three, also had an increase in guided practice, and independent practice was decreased. Overall, all three teams indicated adding a second teacher (elements two and three) made a significant impact on student behavior and change in instruction. Behaviors included engagement, the ability to work independently, and a higher level of understanding. The teachers did not feel using the three-element co-teaching model was difficult, but it did enhance their instructional time which positively impacted their students. The two limitations noted in the study included the small number of co-teaching teams used in the study and the age of the students. This study provided a well-structured co-teaching model with positive results indicating an increase in engagement, understanding, and a decrease in distracting and negative behaviors.

In addition to the different co-teaching approaches, students receiving special education services also require specific accommodations and modifications. These modifications allow students to access grade-level curriculum in an inclusive environment (Strogilos et al., 2018). In a best-case scenario, the two teachers typically will collaborate to implement these requirements. However, due to the lack of knowledge about disabilities, this could pose a challenge for the general education teacher to manage.

Co-teaching is one way to ensure the modifications are enforced because both the special education teacher and general education teacher are in the classroom at the same time. In theory, this could make managing these unique adjustments much easier. The mixed-method study “Differentiated Instruction for Students with Disabilities in Early Childhood Co-Taught Classrooms: Types and Quality of Modifications” evaluated the quality of administering the curriculum modifications in a co-taught environment (Strogilos et al., 2018). This study took place in an elementary school setting and included 34 co-taught classrooms. Information was gathered from questionnaires completed by the 68 participating general education and special education teachers. In addition to completing questionnaires, 57 observations were completed in all the participating classrooms. Data from both the questionnaires and observations were analyzed both qualitatively and quantitatively. Limitations of this study included the limited age range of the students, and the data only examined students with disabilities and not all the students in the classroom.

Results from this study indicated novice teachers felt the quality of differentiated instruction and the ability to modify the curriculum was more effective in a co-teaching environment. More experienced teachers had similar feedback to the novice teachers but felt their experience played more of a role in their abilities rather than the co-teaching environment.

Both levels of teachers indicated they preferred to differentiate instruction rather than make the instruction “different,” which was more effectively supported by the special education teacher in the classroom. In summary, this study supported the effectiveness of co-teaching to implement quality modifications and differentiation to meet the needs of students with disabilities compared to single-led teacher classrooms.

While there are many indicators to analyze the effectiveness of co-teaching, how do teachers use the information to enhance the inclusive environment? The study “General Education Teacher Practices: Assessment, Decision-Making and the Influence of Co-Teaching” analyzed decision making to better support students with disabilities by using assessments administered in a co-taught environment (Wherfel et al., 2021). This qualitative study used surveys from 126 participating middle and high school co-teachers which focused on the use of assessment data for decision-making. Many assessments are administered, graded, and simply placed in a grade book. This study analyzed the interpretation of the assessments and how the results can provide teachers with critical information to better support their students with disabilities. The assessment types selected in the survey indicated the following: teacher created (35%), entrance/exit tickets (16%), questioning techniques (15%), homework (9%), and student response systems (7%) (Wherfel et al., 2021). Most of the teachers indicated they use the data from these assessments to check for understanding and make necessary adjustments. Out of the participating teachers 80% indicated that having a specialized teaching partner increased the ability to analyze the results together and adjust appropriately to meet the needs of the students rather than doing it alone. Similarly, in the previous study by Strogilos et al. (2018), findings in the study indicated at the secondary level, general education teachers rely more heavily on the special education teacher to help interpret data and support struggling learners more efficiently.

Limitations of this study included the information provided was self-reported data, and it was unknown if the responses were a true depiction of the classroom performance. In brief, this study provided a significant amount of support to the effectiveness of co-teaching and utilizing the strengths of the co-teaching partners to increase support in the classroom. Using assessment data to make informed decisions is a beneficial tool to improve academic outcomes and overall achievement.

In review, the research from this section indicated co-teaching has a high potential for effectiveness. Co-teaching provides variety in teaching approaches, gives support to both students and teachers, and increases the quality of accommodations in the general education classroom. Students participating in co-taught classrooms feel more supported and report their needs being met more effectively due to the lower student/teacher ratio. Teachers indicated utilizing the strengths of their co-teaching partner to make better-informed decisions. Although this section discussed the components which can increase overall effectiveness, there are several barriers that can get in the way of making this instructional model successful. The following section uses research studies to address the most common barriers which can negatively impact the co-teaching experience.

Barriers of Co-Teaching

Although co-teaching has a high potential for keeping students in their natural learning environment and increasing access to grade-level curriculum, throughout the research, several barriers continued to be a common theme. Subjects like personality conflicts, the co-planning time between the two teachers, roles and responsibilities, and lack of training continued to surface in nearly every co-teaching study conducted. This section addresses these barriers and what could be done proactively to combat them.

Feedback is an important way to make improvements, specifically on a professional level. Taking the time to reflect on what worked, what did not work, or what could have been done differently are key reflections to making improvements. The qualitative research study “Special Education and General Education Preservice Teachers’ Co-Teaching Experiences: A Comparative Synthesis of Qualitative Research” specifically reviewed feedback and perceptions from teachers in a co-teaching environment to learn from these key reflections (Shin et al., 2015). The research included data from 11 previously conducted research studies specifically focusing on communication, meeting the needs of learners, personality conflicts, challenges, and different views on collaboration which were common themes between both general education and special education teachers across all 11 studies. Limitations of this study included the small number of participants and lack of information surrounding the categories of disabilities in each of the studies. This resulted in a narrower view of teacher perceptions of co-teaching.

Results from the analysis of the previously conducted studies concluded teachers felt collaboration and communication were the most critical components of a successful co-teaching experience. The participants also indicated lack of training and knowledge were the missing links to enhancing their inclusive classroom. Although both teachers had different areas of expertise, without proper training, these specific strengths were not utilized effectively. In the end, the participants concluded not enough front-end work was completed to set them up for success in a co-taught classroom.

In addition to intentional collaborative planning, training and knowledge on the different co-teaching models is extremely beneficial. The quantitative study, “Co-Teaching Perspectives from Middle School Algebra Co-Teachers and their Students with and without Disabilities,” not only analyzed feedback from students and teachers, but it examined the importance of proper

training in this instructional model (King-Sears et al., 2018). There is more to co-teaching than simply adding an additional teacher into the classroom. There are six co-teaching approaches that can be used while delivering a well-planned lesson. The six approaches include: one teaches-one observes, one teaches-one assists, parallel teaching, alternative teaching, and team teaching (King-Sears et al., 2018). As mentioned in the previously discussed study conducted by Iacono et al. (2021), the approach most used is one teach-one assist, which is described as one teacher leading the lesson while the co-teacher observes students and at times collects a variety of data (King-Sears et al., 2018). Participants of this study included both middle school students and two teachers from a school system in a South Atlantic region in the United States. The two teachers in this study include one algebra teacher with two years of teaching experience and a special educator with six years of experience. There was a total of 24 middle school students who participated in the study, 17 students without disabilities and seven students with identified disabilities. Both students and teachers completed a Co-Teacher Questionnaire (CTQ) which was described as web-based, consisted of six domains, and was rated using a 4-point Likert scale (King-Sears et al., 2018). Limitations included the small number of participants in the classroom setting and the self-reported questionnaire data.

The questionnaires were completed towards the end of the school year and before the state math assessments took place. The first round of data was reviewed and similarities between teacher and student responses were analyzed. The second round of data was reviewed and examined responses from students with and without disabilities. Results from the questionnaire indicated the relationship between the two teachers had an impact on the co-teaching experience and co-planning was critical (King-Sears et al., 2018). Results also indicated both teachers felt valued and did not see themselves as the “lead” teacher role (King-Sears et al., 2018). The two

co-teaching models used most by this set of teachers included one teach-one assist and team teaching. Responses from students indicated they learned best and preferred to learn from both teachers rather than one. They felt more supported and did not see one teacher as the lead over the other (King-Sears et al., 2018). Overall, this study resulted in the importance of co-teacher relationships, proper planning time, and the impact this team dynamic had on students with and without disabilities.

There can be some hesitancy from teachers to implement co-teaching as an instructional model. Due to various opinions, personalities, and levels of experience, this can be its own barrier. The study “Collective Self-Efficacy Expectations in Co-Teaching Teams – What are the Influencing Factors?” examined the actual structure of a co-teaching team (Krammer et al., 2017). This quantitative study focused on how co-teaching teams are determined, the responsibilities and roles of each teacher, and whether the team dynamic impacts the quality and effectiveness of the instruction. For this research study, an online survey was conducted. To gather participants, invitations were sent out and some teachers were recruited to participate. The only requirement was that all participants were actively co-teaching at the time the study took place. A total of 316 teachers from Austria participated in taking the survey with an average teaching experience of 21 years and 2 years co-teaching experience. 83% of the participants were middle school teachers, 11% were teachers from a “gymnasium”, and the rest were special education teachers (Krammer et al., 2017).

The results from the online survey concluded the number of years with co-teaching experience has no impact on the collective self-efficacy (Krammer et al., 2017). The results also indicated if a teacher picks their own co-teacher, it did not have a significant impact versus if an administrator picked the co-teacher. The last result from the survey included shared

responsibility between teachers. Most of the results indicated responsibilities were shared and the teachers identified their roles in the partnership. This study focused more specifically on how the development of a co-teaching partnership begins and if teaching experience or co-teaching experience can impact the dynamic between the teachers. The results concluded these factors do not play a part in the implementation of this instructional model, but a strong partnership is important to the overall success.

Outside of a strong partnership and collaboration between partners, teacher buy-in is also another important factor. Administrators can advise teachers what is required of them, but if teachers are not on board with it, it can show in their attitude and instruction quality. The study “Teachers’ Views of Co-Teaching Approaches in Addressing Pupils with Special Educational Needs (SEN) in Multi-Grade Classrooms” dove deep into teachers' thoughts and perceptions towards co-teaching in multi-grade classrooms (Casserly & Padden, 2017). This case study used mixed-methods to gather information from 22 primary multi-grade, and special education teachers in Ireland. The special education teachers included in this study reported they currently provide special education services using the team-teaching approach, pull-out model, small group, and/or individual sessions. A total of 40 questionnaires were administered as part of the study, 20 to multi-grade teachers and 20 to special education teachers. The content of the questionnaires included the models of supplementary support, experience with co-teaching, planning, delivery of co-teaching methods, and advantages/disadvantages of co-teaching (Casserly & Padden, 2017). Limitations of this study included the restricted age range and geographical region.

The preliminary findings of the questionnaire indicated co-teaching was not a commonly used practice and the pull-out method of service delivery was the most prominent. Other results

indicated teachers felt the student-to-teacher ratio was a huge benefit to co-teaching and felt they could better serve their students having two teachers rather than one. Responses also indicated co-teaching could lead to effective differentiation and content could be covered more deeply (Casserly & Padden, 2017). The biggest barriers noted on the questionnaire indicated collaborative planning time was a struggle, along with a lack of professional development. Overall, the teachers in this study reported similar concerns that were noted in previously used studies but could see the benefits to using co-teaching to enhance instruction, especially with students identified as having disabilities.

Having two teachers in one classroom sounds appealing to some, but co-teaching comes with its challenges. Sharing responsibilities, collaborative planning time, administrative support, proper training, and personality conflict are just a few common themes identified during the preliminary research on this topic. The research study, “Examining the Implementation of Two Co-Teaching Models: Team Teaching and Station Teaching,” examined the barriers co-teaching can have in schools and what supports are needed during the implementation process of this instructional model (Gurgur & Uzuner, 2011). This qualitative study was completed in a low-income, general education second-grade classroom setting in Turkey. The study included a total of 35 students, two of which were identified as requiring special education services (Gurgur & Uzuner, 2011). This study also included one general education teacher with 18 years of teaching experience and one special education teacher with 10 years of teaching experience. Data was collected and analyzed using checklists, lesson plans, teaching materials, student work samples, and the classroom lessons were video recorded over the course of approximately two months. Each week of the study, a full weekly cycle was completed including joint planning, teaching practices, and discussions on the practices. These three main components of the weekly cycle

were then broken down into what worked, what did not work, and what was challenging. The purpose of collecting this data was to determine what needs to be in place to make co-teaching successful upon implementation for an entire school (Gurgur & Uzuner, 2011). There was no mention of any specific limitations in this study; however, it was noted, this study was completed in only one classroom with one set of teachers, which provided a very limited amount of diversity.

The overall results of this study concluded joint planning was helpful, but the planning the teachers did lack structure and guidance (Gurgur & Uzuner, 2011). Due to the lack of structure of the joint planning time, no final decisions were made regarding responsibilities, roles, and lesson planning. Not only did these barriers impact the actual instruction, but they also created a divide between the two teachers rather than a union. The research concluded intentional planning is critical to the success of implementing co-teaching. Although it is extremely helpful to have two teachers in the classroom to provide additional support and knowledge around disabilities, this additional support in the room can be far more impactful with more intentional planning.

The previously discussed research studies have all indicated more front-end work needs to be put into place before implementing co-teaching. Teacher feedback concluded training, co-planning time, and strong collaboration are the biggest barriers preventing a more impactful outcome. This feedback, although important, has no value if school administrators are not onboard for proving these components. Teachers typically do not make the school schedules to ensure a common prep time and opportunities for professional development. "Co-Teaching in Content Area Classrooms: Lessons and Guiding Questions for Administrators" is a qualitative study that focused on the development of training to improve the co-teaching model (Sinclair et

al., 2018). This study took the most common concerns reported from co-teachers and compiled the data to help guide administrators to better support co-teachers. 21 middle school co-taught classrooms in the United States participated, which included a total of 42 teachers. The data was collected through interviews with the teachers, and limitations included a lack of data to support findings. The information was self-reported feedback and data was not collected to determine the accuracy of the information provided. Like the previous studies, co-planning time, personality conflict, and lack of training were the most reported barriers. Unlike previous studies, participants in this study indicated a preference for pairing co-teachers based on strengths and including staff in the decision-making process. The results of this study were consistent with previous research indicating the most common barriers and how critical front-end work is to the success of the co-teaching implementation.

Data from the studies in this section aligned with the findings from the first theme of the literature review. As mentioned throughout, the most common barriers included personality conflict, co-planning time, collaboration, roles and responsibilities, lack of training, and teacher partnership. Co-teaching has many appealing components, but the barriers mentioned can impact not only the process for the teachers involved but also student achievement. With the necessary support in place for teachers, how successful can co-teaching be for the students directly? The following section examined the actual impact co-teaching has on academic and behavioral outcomes for students.

Impact of Co-Teaching

This literature review has covered the effectiveness of co-teaching practices, as well as barriers, but has not dived into the actual impact co-teaching has on student achievement. The most important aspect of co-teaching is supporting learners, and how does having this classroom

model impacts their achievement both academically and behaviorally? The following section reviewed results from four studies that specifically address student impact.

Academic achievement is at the forefront of all instruction, how can teachers better support their diverse learners to have the best possible outcome? As discussed, co-teaching provides an opportunity for two teachers to work together to meet the needs of all students in an inclusive classroom environment. The study “Collaborative Teaching: Exploring the Impact of Co-Teaching Practices on the Numeracy Attainment of Pupils with and without Special Educational Needs” specifically focused on the academic achievement in mathematics at the elementary level (Lehane & Senior, 2019). What made this study unique is the analysis of the outcome for both students with and without disabilities, as well as the class as a whole. This mixed-methods study took place at one elementary school in Ireland, specifically in two fourth-grade classrooms over the course of one school year. Limitations included the small sample size and the duration of the study. The data used to determine the overall impact included the standardized mathematics assessments. A pre and post-test were administered to compare data.

Strong evidence in the results indicated co-teaching can have a positive impact on all students, not just students with disabilities. All the students in the co-taught environment had improved mathematics scores. The study did not include which co-teaching approach was used or what disabilities were in each of the class samples, which limited the findings. The study also compared data from the previous school year in which the students with disabilities received special education services outside of the classroom. The results indicated a higher increase in the co-taught classroom in comparison. As a result, showing the positive impact co-teaching has as a special education service model.

Although two completely different studies were conducted by the same group of researchers, the common theme between the two studies focused on improving reading comprehension at the middle school level. The first study “Reading Comprehension and Co-Teaching Practices in Middle School English Language Arts Classrooms” reviewed improving reading comprehension in a co-taught environment without professional development (Wexler et al., 2018). The second study “Improving Literacy Instruction in Co-Taught Middle School Classrooms to Support Reading Comprehension” focused on the same focal point as conducted previously, but this time after professional development has been completed (Wexler et al., 2022). The first qualitative study was conducted using observation in six middle schools, which included 16 co-teaching partners across four states. During each observation, one student with a reading goal on their IEP was identified and observed. Three observations were completed per classroom throughout the duration of the study. Limitations included a small sample of students with disabilities during the observations, as well as student achievement data to support the findings from the observations. The study fell short of finding a direct positive impact on student achievement with reading comprehension. Throughout the observations, the teachers lacked variety in using appropriate differentiation strategies which prevented more needs from being met. This study did not support a positive impact from co-teaching and researchers indicated the importance of professional development.

Unlike the previous research, the second study “Improving Literacy Instruction in Co-Taught Middle School Classrooms to Support Reading Comprehension” took place after professional development was conducted (Wexler et al., 2022). This mix-method approach focused on the same thing, reading comprehension in a middle school setting. Nine middle schools in six school districts were included in this study and eleven co-teaching pairs were

recruited to participate. Pre and post-tests were used to gather data from students in the co-taught classrooms. The student population included students with and without disabilities for comparison. This was a much more accurate data collection compared to the previous study conducted by Wexler et al. (2018), which only used observations. Professional development was conducted over two days at the beginning of the school year, which focused on co-teaching and fidelity procedures. The small sample size limited the scope of the research and narrowed the results to a very specific age range and content area. The results concluded an overall improvement in both teaching strategies and student achievement. Identifying the main idea of a story and recalling specific details from reading passages were tested. While students did not improve significantly with identifying the main idea of a story, they did make improvement with recalling specific details. Both studies focused on reading comprehension, but clearly identified the importance of teacher training, which was previously identified as one of the main barriers with co-teaching. It is clear in these studies that this barrier directly correlates with student achievement.

Outside of academic achievement, behavioral impact is also equally as important. Typical behavioral concerns include disengagement, refusals, oppositional behavior, aggression, shutting down, and lack of effort. Oftentimes these behaviors are communication indicating confusion, frustration, boredom, and anxiety. Many students receiving special education services experience behaviors in the classroom. Having two teachers in the classroom is one way to provide more support to these students, but does it make a positive impact on their behavioral performance? The qualitative study “The Impact of Number of Adults on Instruction: Implications for Co-Teaching” specially focused on the behavioral impact having more than one teacher has on these students (Sweigart & Landrum, 2014). This study included data from a large data set of more

than 5000 classrooms within 50 schools across the United States. The data was collected by using direct observation of 15-minute increments in each classroom. No demographic information was provided for each of the classrooms, which limited the data collection slightly. The age range of the samples included classrooms from both primary and secondary-aged students. Specific areas of focus included positive/negative feedback, time spent in small group settings, one-on-one instruction, active engagement, and disruption. Aside from the lack of demographic data, another limitation included the lack of background information on the teaching partners. This meant it was unclear during the observations which adult played which role in the teaching partnership. Results from this study noted the biggest difference between single teacher-led and co-teaching rooms was the amount of time spent in small groups or one-on-one settings, which led to an increase in engagement and appropriate differentiation. This result is consistent with the previously discussed study conducted by King-Sears et al. (2018). Students in that study indicated they received more attention from the two teachers instead of one, which increased their engagement. Not only did engagement increase, but the overall comprehension of skills also increased. In all areas of focus, there was a decrease in behavior in classrooms with more than one adult present. It was assumed in the study this was because teachers were able to address students more quickly reducing wait time. However, there was no specific data to support this assumption.

This theme focused on the direct impact co-teaching has on student achievement, which was evident by the data included. Both academic and behavioral achievement was impacted positively in co-taught classrooms. Student needs were met more quickly, and teachers were able to differentiate instruction more effectively. The teaching partners could also lean on each other's areas of expertise, especially when working with students with disabilities. As mentioned

previously, this is something general education teachers typically do not have extensive training with. All in all, co-teaching leads to positive student impact and higher levels of achievement than being in a single teacher-led classroom. Although barriers can get in the way of a successful co-teaching environment, proper planning, and preparation at the time of implementation can increase this level of impact for all students.

Summary of Findings

Throughout the research on co-teaching, it is clear the data is limited. A limited amount of quantitative data was collected to support actual student impact. Most data included observations, surveys, and questionnaires which narrow the results significantly. Based on the studies included, several components impact the effectiveness, as well as create a barrier to achieving a more positive outcome. The most common trend among all the studies included the importance of teacher training, collaboration, and co-planning time.

While the studies included identifying components to make co-teaching successful, in the end, administration support is required to implement a more solid foundation for co-teaching. The bottom line is that most of the front-end components required are out of the control of teachers and into the hands of administration to take the necessary steps to increase the effectiveness. Co-teaching has many benefits, which include creating an inclusive environment for learners and increasing access to grade-level core curriculum.

Conclusion

In conclusion, the research studies used identified effective strategies, barriers, and positive student outcomes. Co-teaching continues to be a highly effective instructional strategy that can meet the needs of more learners than teaching alone. General education teachers do not

have the training or knowledge to support students with disabilities in the same way as special education teachers do.

Working together cohesively can provide students with an inclusive environment that keeps them in the classroom, exposes them to grade-level curriculum learning alongside same-age non-disabled peers. Rather than pulling students out of their natural learning environment to receive special education services, keeping them in their classroom to experience age-appropriate learning is far more impactful in the long run.

The following chapter takes a closer look at the insights gained from the research and how these insights can be used to make improvements and changes to the co-teaching process. This includes suggestions for future research and recommendations for districts to consider.

Chapter Three: Discussion, Application, and Future Studies

Prior to the extensive research into co-teaching, very little knowledge was known about the impact and if this is an instructional model worth considering. Throughout the process of learning the ins and outs of co-teaching, many components are now at the forefront of how co-teaching can work and what goes into the process to make it successful. This chapter reviews insights gained, how to apply the insights and recommendations to improve the process, and suggestions for future research studies.

Insights Gained

After analyzing the research studies in this literature review, many insights were gained. First, there is a significant amount of foundational work that goes into the implementation of co-teaching. There are six co-teaching approaches, which require training in the effective ways of using each of them. The six approaches include: one teach/one observe, station teaching, parallel teaching, alternative teaching, team teaching, and one teach/one assist (Friend et al., 2010). Each

classroom has a different dynamic and not all these approaches can be used effectively resulting in a maximized learning outcome. For example, according to the study conducted by Iacono et al. (2021), one teach/one assist approach was one of the most used approaches. However, it was also identified as one of the least effective. Similarly, in a separate study by Keeley et al. (2017), the results were consistent and concluded the same results with the use of the one teach/one assist approach and its lack of effectiveness. This information confirms the importance of proper training and preparation into each of the approaches, and the ability to switch fluidly between them based on the needs of the classroom.

Another insight gained from the research included the importance of administrative support. The primary reason for this critical component includes the ability to have a common co-planning time between teaching partners and sufficient collaboration time. Typically, administrators set the schedules for teachers, and having a common planning time would be something to consider prior to implementing co-teaching. King-Sears et al. (2018) conducted a study that examined feedback from teachers in a co-teaching classroom. The results from this study indicated that not only were the teachers lacking co-planning time, but because of the inability to collaborate with their co-teaching partners, this resulted in conflict between the teachers. Neither of the teachers viewed themselves as an equal partner in the classroom, and the responsibilities were not evenly distributed between the two. Another study by Krammer et al. (2017) had similar findings and included feedback on how critical the co-teaching dynamic between the partners was to the success of co-teaching.

One more key insight from the research involves the lack of actual data to support the academic and behavioral achievements co-teaching has on students receiving special education services. Much of the data included qualitative and mixed-methods studies and lacked substantial

quantitative research. Majority of gathering data included observations, questionnaires, and surveys. Although some data were collected and expressed by quantity, the primary focus of the research was not surrounding student impact. The quantitative study conducted by King-Sears et al. (2018) focused on the importance of proper training, while another quantitative study examined by Krammer et al. (2017) focused on the quality of a co-teaching team. Although these studies contributed valuable information to the overall impact of co-teaching, neither study focused on student impact. Both studies by Wexler et al. (2018 and 2022), focused on student achievement using mixed-methods to gather data. However, limitations of these studies also included a very narrow scope of focus, middle school reading comprehension. Again, while all the results from the studies are critical components, there are holes in the studies to sufficiently address the research question, how does co-teaching impact academic and behavioral achievement for students receiving special education services?

Although there is limited data to prove the direct student impact of co-teaching, there is significant evidence that suggests the potential it can have. Not only can co-teaching keep students in the general education classroom with same-age non-disabled peers, but it increases access to grade-level curriculum. This provides all students with age-appropriate instruction and academic rigor. Co-teaching also provides support to both teachers with a different level of expertise which would not be available without the other. This can meet a wider range of needs within the same classroom, as well as provide special education services in a more inclusive setting. Co-teaching is an instructional model worth considering, however, should not be considered unless districts are willing to put forth the effort prior to implementation. The foundational groundwork before and after implementation is critical to the positive outcome it has the potential for.

Application

After analyzing the research and taking away important insights, now what? How can this information be used to improve the co-teaching process? The following section provides recommendations on how to apply this knowledge to strengthen the co-teaching process. Districts, school administrators, and teachers can consider this information prior to implementing it to develop a more solid foundation.

The first step to consider is creating a scope and sequence for co-teaching. This can be developing a training process from start to finish. As many of the studies discussed, one of the most important components missing was proper training. While there are several co-teaching approaches, how can these approaches be used more effectively? Also, what does it look like to be a co-teacher? Part of the training process could include modeling from professional co-teaching trainers. Having these professionals' model each of the six approaches and demonstrate the fluidity between each one could be a strong training opportunity that many schools are lacking. In addition to providing hands-on training, ongoing training and support after implementation are also just as critical. This could include observations from the training professionals, gathering feedback on challenges and strengths, and more modeling. The importance of proper training was proven by both studies conducted by Wexler et al. (2018 and 2022). The first study resulted in poor results of student impact and the consensus was related to lack of training. The second study was conducted after professional development took place, which resulted in positive student outcomes. The front-end components need to be established prior to starting this instructional model to ensure those clear expectations are established, and the tools are provided to attain them.

The next most common result from the studies included a lack of co-planning and collaboration time. This is typically something controlled by administrators, who set the school schedules. The importance of administrator support is critical to the success of co-teaching. Teachers often report there is no extra time in the day to squeeze in anything additional to their already full plate. Developing a schedule that includes common prep times and a regular set co-planning time is one way to support teachers throughout the experience. The study by Krammer et al. (2017) established that without this critical time together, co-teaching partners lack established roles and responsibilities. Not only did this result in contention between the partners, but it directly impacted the quality of the co-teaching. Based on the results of several studies examined, this collaborative time should be non-negotiable.

The last recommendation surrounds the importance of data to support if co-teaching is making a positive impact on student achievement. This includes tracking data before and after implementing co-teaching, specifically for students receiving special education services. How does co-teaching impact their ability to meet IEP goals and objectives? Were they able to meet their goals and objectives more effectively with co-teaching or pull-out services? This data could serve as a critical component to establish the overall effectiveness of this instructional model, yet there is minimal evidence to support it. Regular progress monitoring and data collection around this topic can also serve as a tool to make necessary adjustments along the way. If data tracks stagnant movement, adjusting teaching strategies within the co-teaching approaches could serve as one way to differentiate instruction. With this type of instructional model, change can be the missing puzzle piece to making the largest impact and closing the achievement gap more effectively.

All the recommendations to enhance the co-teaching process are directly correlated to the impact of co-teaching. Based on feedback from students in a co-taught classroom, they feel more supported and held to a higher standard in this type of learning environment (Friend et al., 2010). This response was consistent with another study conducted by Keeley et al. (2017), which also provided positive student feedback. Students indicated they felt more supported, their needs can be met more quickly, and they prefer two teachers in the classroom rather than one (Keeley et al., 2017). Knowing the potential co-teaching has in the classroom, is the time and effort worth it in the end? Could future studies provide a more in-depth understanding of academic and behavioral achievement to the students that need it the most?

Future Studies

As mentioned previously, there is a lack of data to support the direct impact co-teaching has on student achievement. This instructional model is a special education service delivery model, yet there is no substantial evidence to support that it is effective. This data would be ideal for districts to use to determine if co-teaching is an instructional model worth considering. Future studies could revolve around academic achievement at all age levels, disability categories, content areas, as well as behavioral achievement. While this would be a large task to conduct, the outcome could provide research-based results to determine if this is the right fit for specific age groups, disability categories, or content areas. Like all studies, limitations for this research could pose a challenge, but the return on investment could be more impactful. The data would be originating from student performance data points, rather than self-reporting, which is a more reliable source of data.

Every student on an IEP must receive their services in the least restrictive environment possible, without appropriate data, how will teachers know if co-teaching meets those

requirements? As previously stated, co-teaching provides opportunities for consistent exposure to grade-level curriculum within the natural learning environment. However, it is not the best fit for every student. Depending on the severity of the disability, pull-out services could be the least restrictive for certain populations of students. New research including disability categories and severity levels needs to be conducted. This research will provide results indicating if specific disabilities have more impactful results with co-teaching and if other disabilities do not have the same success. Learning this information would provide insight to districts and schools with which population to consider co-teaching.

In addition to the disability category, another helpful research study with a focus on the specific age of students would be extremely beneficial. Does co-teaching have higher success with elementary students, or perhaps it is a better fit for middle and high school students? What are the benefits of co-teaching in each of these age categories? This research study would help narrow the focus for districts and put additional training resources in place for the age range that would have the highest level of success.

Lastly, although academic achievement is the most important component of any kind of instructional program, the behavioral achievement is also just as important. Many students receiving special education services struggle with behavior. The function of behavior varies from student to student, but common functions include boredom, frustration, confusion, and attention. Does a co-teaching environment have a positive impact on behavior? The study by Weiss et al. (2020) had positive results regarding behavior and included an increase in engagement and comprehension of skills. A more in-depth examination of behavior in a co-taught classroom would be very beneficial. Just like when reviewing disability categories and age groups, the

behavior could be viewed the same way. Are certain populations of students a better fit for co-teaching? Positive or negative, what type of behavioral changes take place in this environment?

Digging deeper into the research to specifically narrow the scope of focus would provide substantial data to support when co-teaching could be the most appropriate. This means that districts could put more resources into the program with confidence knowing that the population of students and teachers participating have the most appropriate recipe leading to a positive impact.

Conclusion

Given the diverse needs of students in a general education classroom with one teacher to meet all their needs, this can feel impossible and overwhelming. Most teachers do not have training or extensive knowledge to meet all these unique needs. With the support of a teaching partner, it does not have to feel impossible. Co-teaching is designed to keep students in their natural environment along with the support of two teachers in the classroom to meet individual needs. While the positive aspects of co-teaching are very appealing, results from the extensive research conclude there is more to consider.

Studies conducted by Iacono et al. (2021) and Keeley et al. (2017) both examined the effectiveness of the six approaches to co-teaching. In review, the six approaches include: one teach/one observe, station teaching, parallel teaching, alternative teaching, team teaching, and one teach/one assist (Friend et al., 2010). While all these approaches can provide variety and options for unique ways to teach content, results from both studies indicated that not all the approaches are equally effective. Outside of the typical six approaches to co-teaching, other studies such as the one completed by Weiss et al. (2020), examined the use of other approaches and compared the effectiveness to the traditional six. This study used a three-element approach

to co-teaching which focused on independent and guided practice times in the classroom. Results compared to the six approaches were positive overall and appeared to have a direct impact on student academic and behavioral performance. The purpose of the comparison between the different approaches was to exhibit the wide variety of options available with co-teaching. There is no one size fits all approach, it can be fluid and adjusted to meet the needs of the learners.

In addition to the effective components of co-teaching, came barriers. Common barriers that were consistently mentioned in nearly every study included lack of proper training, co-planning times, collaboration, personality differences between teaching partners, and roles and responsibilities. These barriers contributed to the overall results of co-teaching and prevented many classrooms from reaching their highest potential. There is no doubt that these barriers can lead to a negative outcome or lack of progress but knowing this information prior to implementation can alter the trajectory of the co-teaching process.

Although the overall results of the research studies lacked data to support the direct impact co-teaching has on student achievement, the information learned is beneficial. Co-teaching is a complex service delivery model which should be taken seriously. This is a high-quality level of academic instruction from two trained teachers with different areas of expertise. As districts are making more of an effort to develop inclusive classrooms for all students, co-teaching is one strategy that can deliver special education services in the natural learning environment. While considering this model as an option for schools and using the knowledge learned from the research studies, administrators must do their due diligence to implement co-teaching with a strong foundation.

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