

Gardner-Webb University

Digital Commons @ Gardner-Webb University

Doctor of Education Dissertations

College of Education

Summer 2022

A Program Evaluation of the Marilyn Friend Co-Teaching Models

Emily Wilkins

Gardner-Webb University, ewilkins4@gardner-webb.edu

Follow this and additional works at: <https://digitalcommons.gardner-webb.edu/education-dissertations>



Part of the [Education Commons](#)

Recommended Citation

Wilkins, Emily, "A Program Evaluation of the Marilyn Friend Co-Teaching Models" (2022). *Doctor of Education Dissertations*. 106.

<https://digitalcommons.gardner-webb.edu/education-dissertations/106>

This Dissertation is brought to you for free and open access by the College of Education at Digital Commons @ Gardner-Webb University. It has been accepted for inclusion in Doctor of Education Dissertations by an authorized administrator of Digital Commons @ Gardner-Webb University. For more information, please see [Copyright and Publishing Info](#).

A PROGRAM EVALUATION OF THE MARILYN FRIEND CO-TEACHING
MODELS

By
Emily L. Wilkins

A Dissertation Submitted to the
Gardner-Webb University College of Education
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Education

Gardner-Webb University
2022

Approval Page

This dissertation was submitted by Emily L. Wilkins under the direction of the persons listed below. It was submitted to the Gardner-Webb University College of Education and approved in partial fulfillment of the requirements for the degree of Doctor of Education at Gardner-Webb University.

Stephen Laws, EdD
Committee Chair

Date

Angela Hinton, EdD
Committee Member

Date

Bonnie Bolado, EdD
Committee Member

Date

Prince Bull, PhD
Dean of the College of Education

Date

Dedication

This dissertation is dedicated to my wonderful mother, Ginger Lowery, in heaven. She was an amazing role model and support for me always. She was my absolute best friend. She has been my guardian angel throughout this process. For teaching me to always chase my dreams, this is for you, mom. I love you always!

Acknowledgements

I would like to acknowledge and thank my committee chair, Dr. Stephen Laws, for his continuous time, efforts, and expertise. Thank you for pushing me and not allowing me to quit (because we both know I wanted to give up numerous times). You have taught me so much. You have helped me to grow as a leader, a writer, and a person. I truly appreciate your advice and your listening ears. I truly can never thank you enough for all you have done for me. I am so thankful for you; you will forever hold a special place in my heart. Thank you for absolutely everything!

A big thank you goes to Dr. Angela Hinton and Dr. Bonnie Bolado, members of my dissertation committee, for their time, support, expertise, and constructive feedback during this process. Thank you for your willingness to be a part of my committee. You both are the type of educators I aspire to be, and I admire you both more than you will ever know. Thank you both for always being available, providing ideas, giving suggestions, and pushing me to be the best version of myself. Thank you both for everything!

I would also like to acknowledge and thank my wonderful school district and the administration team for providing me with permission to complete this study. Thank you for providing me with the data as well as anything else I requested. It means so much to me to work in a school district that supports staff in all aspects of their career. Thank you! Also, thank you to each and every person from my school district who gave up their time to be a part of my study. I appreciate you sharing your opinions as well as data from your schools. I definitely could not be here without each of you. Thank you all so very much!

Thank you to my wonderful husband Josh Wilkins and my beautiful daughter

Ginger Wilkins. I appreciate each of their sacrifices and support throughout this process. Josh, thank you for being so understanding when I could not always be present and for stepping in for me to complete “mom duties.” Ginger, I hope this teaches you to follow your dreams and that you can do anything that you set your mind to. You both mean the world to me. Thank you both for helping me as I pursued my doctoral dream. I love you both so much, and I thank God daily for you both!

A big and special thanks goes out to my daddy, Don Lowery. He has always been an inspiration for a strong work ethic and perseverance. Thank you for pushing me and reminding me that I can do anything I set my mind to. Thank you for always being here for me, and thank you most importantly for always showing me the true meaning of unconditional love. I love you daddy so much!

Thanks to my big brother, Adam McAbee, for the support and encouragement. You always listen and offer to help in any way you can, and that means more to me than you will ever know. You are my best friend. I love you, and I am so thankful to have a big brother like you!

I also want to thank the best in-laws, Mark and Karen Wilkins, who have been a constant support and encouragement along this journey. Thank you both for helping me with Ginger and offering to do anything to help make my life a little bit easier. I love you both!

I would like to acknowledge my wonderful cohort group. I thank God that our paths crossed. These past 2 years have been so much fun. The late-night classes and weekend classes would not have been near as fun without each of you. We have laughed together, we have cried together, but most importantly, we have grown together and

created friendships that will last a lifetime. I appreciate the support from each of you, and I cannot wait to see where this journey takes us. Thank you all for everything!

Last, but certainly not least, I want to acknowledge and thank my sister-in-law/best friend, Jessica McAbee. Thank you for pushing me to complete this program with you. You have been my rock and more like a sister to me from day one (God certainly knew what He was doing when He blessed our family with you). We have shared many frustrations and belly laughs together, but looking back, I would not trade any of the memories we have made throughout all of this because it has led us here. I could never have made it through this program without you. Thank you for everything. I love you! Here's to us, we did it!

Abstract

A PROGRAM EVALUATION OF THE MARILYN FRIEND CO-TEACHING MODELS. Wilkins, Emily L., 2022: Dissertation, Gardner-Webb University.

This study was prompted by the continuous rise in expectations for students with disabilities to have access to the general education curriculum within the general education classroom. This study was a program evaluation on the Marilyn Friend co-teaching models that utilized Stufflebeam's (1960) Context, Input, Process, Product (CIPP) program cycle at three middle schools in one upstate South Carolina school district (Social Science Space, 2017). Data were collected via teacher surveys and follow-up interviews with general education and special education teachers, middle school administrators, and appropriate district office personnel. The survey population included 31 middle school general education and special education teachers. The survey consisted of 11 questions: four multiple-choice, one Likert scale question, one check all that apply question, and five open-ended questions that addressed co-teaching training, planning, professional development, and the overall implementation of the Marilyn Friend co-teaching models. Follow-up interviews with five middle school administrators, one director of special education, and 19 general education and special education teachers helped to complete the program evaluation. Their perceptions of the Marilyn Friend co-teaching models revealed that teachers found co-teaching was beneficial for all students, but additional time was needed for planning purposes with their co-teachers. This study was grounded in Bandura's (1994) self-efficacy theory. Findings from the survey and the interviews brought about common themes centered around the overall implementation and sustainability of the co-teaching program. The co-teaching program needs some

improvements in regard to the initial training offered, professional development/coaching throughout implementation, scheduling, and co-planning to make the program most effective.

Keywords: Marilyn Friend co-teaching models, co-teaching, self-efficacy theory, middle school, CIPP program evaluation

Table of Contents

	Page
Chapter 1: Introduction	1
Background	2
Problem	3
Purpose	5
Overview of Methodology	8
Research Questions	9
Significance	9
Theoretical Framework	10
Setting	11
Role of the Researcher	11
Definition of Terms	12
Summary	15
Chapter 2: Literature Review	17
Theoretical Framework	17
Self-Efficacy and In-Service Training	25
Teaching Students With Disabilities – Inclusion	28
Best Practices During Inclusion	29
Inclusion Studies	32
Teaching Students With Disabilities – Co-Teaching	33
Best Practices in Co-Teaching	36
Marilyn Friend Co-Teaching Models	42
Pros and Cons of Marilyn Friend Co-Teaching Models	42
Deciding on a Co-Teaching Model	45
Studies and Examples Based on the Marilyn Friend Co-Teaching Models	46
Self-Efficacy Studies in Co-Teaching	50
Summary	54
Chapter 3: Methodology	56
CIPP Program Evaluation	56
Research Questions	60
Program Participants/Selection of Sample	61
Nature of the Study/Rationale	62
Research Design	62
Instrumentation	63
Data Collection and Analysis	65
Survey Items	66
Interview Questions	67
Summary	68
Chapter 4: Results	69
Purpose	69
Co-Teaching Survey	69
Co-Teaching Interviews	79
Interview With Middle School 1	80
Interview With Middle School 2	84
Interview With Middle School 3	88

Interview With Middle School Administrators	92
Interview With Special Education Director	98
Summary	102
Chapter 5: Discussion	105
Overview.....	105
Restatement of the Problem	106
Summary of Findings.....	107
Context Evaluation.....	107
Input Evaluation.....	109
Process Evaluation	113
Product Evaluation.....	116
Implications for Practice	118
Recommendations for Further Research.....	124
Limitations and Delimitations.....	125
Summary	126
References	127
Appendix	
Co-Teaching Survey	138
Tables	
1 Alignment Table	65
2 Survey Question That Pertains to Research Question 2	71
3 Survey Question That Pertains to Research Question 3	73
4 Survey Question That Pertains to Research Question 3	75

Chapter 1: Introduction

“Special education class is the place school makes you go to do the things you are not good at all day long” (Jung et al., 2019, p. 2). These words were spoken by Kevin, a student with autism. It is not uncommon to see students like Kevin spend most of the school day in a segregated classroom for students with disabilities. These classes are designed to focus on skill and behavior deficits that a general education classroom teacher cannot always focus on.

When overwhelmed, Kevin would frequently rock back and forth and flap his hands. He was considered a child with low communication skills; in reality, he had a lot to say. After several years of no progress, Kevin's parents decided they wanted to move their children to another school within their current school district. Unfortunately, Kevin's disability hindered this. His mom and dad saw the regression their son had experienced, and they wanted to ensure that he had the best opportunities just like his brother (who was in general education classes). Kevin's parents were very involved in their children's education. Prior to moving, they attended several parent workshops offered by the school district. There, they learned there was a possibility for Kevin to be included in the classroom with his same-age peers. “As luck would have it, the district was actually piloting inclusive education practices through the use of co-teaching at a couple of schools. Kevin and his brother transferred schools and Kevin left his traditional ‘special education’ behind” (Jung et al., 2019, p. 2). This transformed his life. Kevin no longer spent time in another classroom working on things he knew he was not good at doing. He was moved into a general education classroom for the entire day at school. He was introduced to the same curriculum his general education peers were learning. Kevin still

required support and accommodations in his general education classes; however, these supports were given to him by a special education teacher (who would come into his classes) as well as the general education teacher. Kevin thrived in his new environment, called the co-teaching model.

After graduating high school, Kevin earned a degree in engineering and went on to work full-time. Today, Kevin proudly identifies himself as a person with autism (Jung et al., 2019).

Background

Dr. Marilyn Friend is a former general education teacher, special education teacher, researcher, and consultant. Currently, she works with local, regional, and state education agencies to evaluate their special education programs. Dr. Friend's expertise is highly respected nationally and internationally.

Friend stated that co-teaching can be defined as, "a general education teacher and special education teacher providing instruction to general and special education students in a general education classroom" (Brendle et al., 2017, p. 3). There are six models of co-teaching based on the Marilyn Friend co-teaching models. These models include one teach, one observe; station teaching; parallel teaching; alternative teaching; teaming; and one teach, one assist.

Co-teaching is two certified teachers (a general education and a special education teacher) having their own background areas of knowledge. Co-teachers are teachers who share certain responsibilities while in the same classroom, but each teacher also has additional responsibilities (in their specific content area). Co-teachers often teach in multiple classrooms together. In co-teaching, both teachers are held responsible for

student learning and the overall outcomes from that learning (Friend et al., 2015).

Problem

I noted that within the school district of study, there is a lack of effective co-teaching between general education teachers and special education teachers, creating a gap in the delivery of co-teaching instruction across the district. Therefore, it is necessary to complete a full program evaluation of the Marilyn Friend co-teaching models to determine their effectiveness.

Although all teachers involved in the co-teaching process have been trained in the Marilyn Friend co-teaching models and the processes, there is potentially a lack of “know-how” and preparedness for general education teachers and special education teachers. “This is a cause for concern, mainly because teacher preparedness is identified as one of the essential factors required for the success of co-teaching” (Chitiyo & Brenda, 2018, p. 41). The lack of preparedness in turn shows a low sense of self-efficacy and creates a major problem within the delivery of co-teaching.

In many settings, during co-teaching, the special education teacher can be seen as an assistant to the general education teacher, or the special education teacher is assisting only with students with disabilities and the general education teacher can be seen working with the remainder of the class. This creates a more segregated environment within the general education classroom and defeats the purpose of co-teaching altogether. Co-teaching is meant for students of all abilities to work together and be exposed to the same curriculum. “Co-teaching relies on parity” (Friend et al., 2015, p. 38). Co-teachers must recognize that they each bring something different but equally important to the same classroom. Co-teachers must work together to use their differences and levels of

self-efficacy in order to create instruction that benefits all students.

Teacher efficacy is known as “a teacher’s belief in their ability to assist in students’ learning” (Protheroe, 2008, p. 42). A teacher’s sense of self-efficacy can lead to overall progress in and out of the classroom. For the most part, teachers’ levels of confidence about their ability to promote learning can depend on past educational experiences. Teachers can build their self-efficacy by observing other teachers and implementing strategies they see that work as well as getting feedback from other teachers (Protheroe, 2008). Teacher preparedness and high self-efficacy in co-teaching may be seen in numerous ways such as “confidence in using co-teaching, an understanding of the job responsibilities involved, knowledge of the different co-teaching formats, and knowledge of when and how to implement the different co-teaching formats” (Chitiyo & Brinda, 2018, p. 41). Sometimes, one teacher’s teaching style can support certain students, but the second teacher’s teaching style can support other students who may require further support.

Similar studies related to my problem suggest that co-teaching does have a strong impact on teacher self-efficacy. The research shows that general education teachers often lack necessary background knowledge to assist students with disabilities. Special education teachers may also lack knowledge in specific subject areas to assist general education teachers with mastering state standards. Co-teaching allows students to be taught in a classroom that includes multiple teachers’ expertise in multiple domains (Katz, 2018). “Teacher education has a crucial role to play in ensuring that classroom teachers are prepared for the challenges of educating students with and without disabilities” (Blanton et al., 2011, p. 5).

Purpose

Expectations continue to be on the rise for students with disabilities to have access to the general education curriculum within the general education classroom. Therefore, I focused on “restructuring instructional service delivery models so that special education teachers move into regular education settings and establish partnerships with general education teachers to support the needs of students with disabilities” (Chitiyo & Brinda, 2018, p. 38).

The purpose of this qualitative study was to study the effectiveness of the Marilyn Friend co-teaching models and equipping all teachers (general education and special education) with strategies that benefit special education students in the general education classrooms.

Co-teaching is the most popular model that assists students with disabilities and is based on general education and special education teachers co-planning, co-instructing/teaching, co-assessing, and co-managing the classroom in order to provide instruction for students with and without disabilities (Cook & McDuffie-Landrum, 2020). The co-teaching model is used most often as a means of promoting the inclusion of students with disabilities in the general education curriculum and general education classroom. Co-teaching is intended to promote greater success by providing a rigorous curriculum with individualized academic support in a general education classroom with specially designed instruction (Friend et al., 2015). Co-teaching allows students with disabilities to have the same opportunities as their peers.

“Successful co-teaching partnerships require professionals whose educational philosophies, styles, and strength complement one another” (Pratt et al., 2016, p. 244).

Sometimes a teacher's style can reach the majority of students, but the other teacher's style can support those who may require additional support. "The varying styles of the co-teachers can be utilized in any of the co-teaching instructional models" (Pratt et al., 2016, p. 244). The differences in teaching styles in turn become supportive of each other and in turn benefit all students learning.

Co-teaching instruction can be seen in numerous ways. The general education teacher can still be viewed as the main content provider as they decide how the content should be taught and develop a pace for the overall instruction so that all content is covered. The special education teacher may be viewed as the teacher who guarantees full access to the curriculum. "Special education teachers provide accommodations, modifications, strategies, remediation, tools to help facilitate learning, and focus on mastery learning" (Chitiyo & Brinda, 2018, p. 39).

"Through collaborative planning, co-teachers can use the various co-teaching models" (Cook & McDuffie-Landrum, 2020, p. 222). It is important for educators to keep in mind that there is no "one-size-fits-all" model. No matter which model is used, it has to be an appropriate support strategy for the majority of the class and both teachers must be willing to put forth the time and effort to make co-teaching work.

Numerous misconceptions about co-teaching exist. It is important to clarify exactly what co-teaching is not. Co-teaching is not having an extra body in the class; both teachers have crucial teaching roles. Co-teaching is not only one teacher teaching while the other teacher roams around the room. Co-teaching is not a model in which one teacher takes the lead teaching. Co-teaching is also not a convenient means for teachers to get non-teaching responsibilities completed (Friend, 2019).

A successful co-teaching team is based on the knowledge that planning and reflecting are crucial. For co-teaching to be most effective, both teachers must be on the same page about what will occur in the lesson, who will teach what, the instructional methods that will be used, and any accommodations and/or modifications that will be given to particular students. This all occurs through collaborative planning: unit planning, biweekly planning, and daily planning. Planning may occur beyond the school day, using interactive online solutions to collaborate (e.g., Google Doc), using individual expertise, as well as dividing and conquering so no one teacher has to do it all. “Asynchronous and synchronous technologies are helpful to make co-planning feasible. The beauty of using these two platforms lies in the flexibility” (Pratt et al., 2016, p. 248). When teachers do not have a shared planning period, the co-teachers can work online.

The numerous benefits of co-teaching have been well established and far outweigh the costs. It furthers the goal of achieving full social integration for all students. By using the co-teaching model as a framework for students with disabilities, teachers can increase student access to the general education curriculum and the overall outcomes to their individual learning needs (Cook & McDuffie-Landrum, 2020).

To ensure the success of co-teaching, it is important that both teachers follow a step-by-step process during the planning phase before full implementation in a classroom full of students. Step 1: Both teachers will identify learning goals and students' individual needs. Here, the co-teachers will determine the class learning goal (by looking at the standards). Step 2: Select an effective practice for targeted intervention. In this step, the co-teachers must identify the effective practices that are aligned with the unique learning needs of the students based on their Individualized Education Plan (IEP). Step 3: Select a

co-teaching model for targeted intervention. It is important for co-teachers to determine which co-teaching model is most effective and appropriate for the skill that is being taught prior to the beginning of the lesson. Step 4: Determine roles. After determining the co-teaching model, teachers must determine their role in planning and implementing the practice. Step 5: Implement the practice. Once the co-teaching model and instructional roles are established, co-teachers can then be implemented (Cook & McDuffie-Landrum, 2020). By using the five steps above, co-teachers can better plan and deliver instruction that both provides access to the general education curriculum and also integrates effective practices that target students' individual learning needs based on their IEPs.

There are six of the Marilyn Friend co-teaching models. Team teaching, in which co-teachers share all the instruction. Alternative, parallel, and station co-teaching, in which students are divided into groups of varying sizes based on their skill level for small group instructional purposes. One teach, one observe or one teach, one assist, in which one co-teacher takes the lead on instruction while the other co-teacher is in more of a support role offering assistance around the classroom (Johnson & King-Sears, 2020). Through collaborative planning, co-teachers can use each of the various co-teaching models on a daily basis.

Overview of Methodology

I chose to focus only on the middle school age group as these students are in their critical years of education: sixth, seventh, and eighth grades. Therefore, I looked at co-taught classes in the areas of reading and math.

I also chose to use the context, input, process, and product (CIPP) evaluation model created by Daniel Stufflebeam (Social Science Space, 2017). Context will focus on

the why. This includes the needs, resources, problems, background, and environment of the co-teaching program. Input will focus on specific strategies, training, and research of the Marilyn Friend co-teaching program. Process will focus on the development of the co-teaching program, and how the implementation will be done, as well as monitoring and feedback. Product will focus on the impact, effectiveness, and sustainability of the Marilyn Friend co-teaching model in the district of study.

Research Questions

Since gaining a higher sense of teacher efficacy has been recognized as being a critical factor of successful co-teaching, it is important to explore teacher-efficacy with the Marilyn Friend co-teaching model. Four research questions guided the study:

1. Why is a co-teaching model needed?
2. How effective is the training for the Marilyn Friend model?
3. How are the Marilyn Friend models monitored and evaluated?
4. How effective are the Marilyn Friend co-teaching models?

These are questions that I asked concerning effective co-teaching in order to ensure that the Marilyn Friend models are being carried out appropriately.

Significance

Co-teaching is a term that has gained widespread attention. “In the United States, the interest in co-teaching has intensified over the past decade. This interest has been partly as a result of the Individuals with Disabilities Improvement Education Act (IDEIA)” (Chitiyo & Brinda, 2018, p. 39). “The research on co-teaching has shown both academic and social benefits for students as well as benefits for teachers” (Pratt et al., 2016, p. 243).

According to the school district's online Enrich database, there are currently 1,803 students with IEPs. Looking at the data of students with special needs in the general education classroom (with the general education population) an effective co-teaching model would allow for students to be exposed to the general education curriculum in the least restrictive environment and would allow students to get a more well-rounded education.

Theoretical Framework

Self-efficacy is described by psychologist Albert Bandura (1994) as the belief of how people feel, act, and think. Self-efficacy plays a major role in how a person feels and also whether or not that person achieves their goals. Self-efficacy also plays a role in how people understand situations and how they behave in regard to specific situations (Cherry, 2020). Self-efficacy has a strong impact on every aspect of life.

Most people can name specific goals they want to reach. Bandura (1994) found that a person's self-efficacy plays a major role in how their set goals, tasks, and challenges are approached and handled. Self-efficacy comes into play within the district of study as teachers are approached and challenged with the task of co-teaching.

According to research, people who are considered to have strong self-efficacy develop more interest in specific activities; they also form a commitment; they can recover quickly from setbacks along the way; and they view challenging situations as a task that must be mastered. Performing a task successfully ultimately strengthens a person's self-efficacy. On the other hand, people known to have weak self-efficacy avoid challenging tasks; they believe difficult tasks are far beyond what they can do; they mostly focus on the negative outcomes; and they quickly lose confidence in their own

abilities. Fortunately, self-efficacy is a skill that one can foster and strengthen. “The most effective way of developing a strong sense of efficacy is through mastery experiences” (Cherry, 2020, p. 4). However, it is important when one is working to strengthen self-efficacy to celebrate successes, observe others, seek positive feedback/affirmations, and pay close attention to their thoughts and emotions.

Setting

The school district of study is located in the foothills of the Blue Ridge Mountains in the upstate of South Carolina. Currently, the district has nine elementary schools, three middle schools, two high schools, one career center, two alternative schools, and one adult education program. The district serves approximately 11,055 students and employs approximately 660 certified teachers. Of those students, 1,803 have active IEPs. The school district has a strong focus on “students first” and helping them to achieve their greatest potential. The mission of the district is to serve students by empowering them to realize their maximum potential while engaging in rigorous, relevant, real-world learning opportunities within a caring, collaborative, and creative environment. The vision of the district is to be the premier school district in which to live and learn, ensuring all students are prepared for life's opportunities by providing a safe and positive culture with excellence in academics, athletics, and the arts.

Role of the Researcher

I am currently the special education instructional coach for the district of study. I work with special education teachers at the elementary, middle, and high school levels. I provide onsite assistance in classrooms and co-teaching. I am involved with providing various professional development opportunities (including co-teaching). I teach co-

teaching lessons, observe co-teaching in action, and provide feedback to both the special education teacher and general education teacher.

Definition of Terms

IEP

This is a written document that describes the educational program designed to meet a child's individual needs. Every child who receives special education must have an IEP. The IEP has two general purposes: to set learning goals and to state the support and services that the school district will provide. (Family Connection of South Carolina, 2021, p. 3)

Co-Teaching

A type of service delivery model. Co-teaching is a partnership between the general and special education teachers. It is two professionals with equal licenses (typically a general education teacher and special education teacher). The two implement co-teaching by teaching together and sharing the instructional responsibilities and practices (Friend et al., 2015). "It is both teachers taking an active role in the classroom. It includes shared planning, instruction, and assessment of students with and without disabilities" (Pratt et al., 2016, p. 243).

One Teach, One Assist

Known as one teacher teaching the main content and the other teacher simply providing individual support around the classroom.

It is critical that teachers predetermine their roles to make this model effective.

Teachers must determine who will take the lead in regard to teaching the practice and how the other teacher will specifically assist to make the lesson more

effective. (Cook & McDuffie-Landrum, 2020, p. 222)

This model does require both teachers to interact heavily with one another. This model is used when there are students who need more individual support from the general education teacher (Chitiyo & Brinda, 2018).

Station Teaching

When teachers use various learning stations to teach the content.

Teachers must decide how many stations there will be, the focus at each station, the time for each station, and who will teach each station. Depending on the needs of the students, the practice may be taught only at one station and to only some students. (Cook & McDuffie-Landrum, 2020, p. 222)

Individual support is provided at the various learning stations and students rotate through the stations. Both teachers (general education and special education teachers) are at each of the stations teaching differentiated lessons. The content can be the same for all students or it can be different depending on their needs. “Station teaching allows both teachers the responsibility of delivering the content” (Carty & Farrell, 2018, p. 114).

Parallel Teaching

When both teachers instruct half of the class. “Teachers must decide how to group students; typically, when using this model students are grouped heterogeneously” (Cook & McDuffie-Landrum, 2020, p. 226). Most often, each teacher is teaching the same content (possibly presented in the same way or a different way). This provides opportunities for more drill and practice-type activities and lowers the student-to-teacher ratio, creating more one-on-one support. There are many benefits to this model, including more fun and a warmer type of atmosphere (Carty & Farrell, 2018).

Alternative Teaching

Requires pre-teaching and reteaching by both teachers in various small groups. One teacher may work with a large group presenting the new material and the other teacher may work with a smaller group of students who need additional support. “When implementing alternative teaching, teachers need to determine who will explicitly teach the practice to the small group and who will work with the large group” (Cook & McDuffie-Landrum, 2020, p. 222). The pre-teaching allows for more success before the topic is presented to the whole class. “Here, co-teaching is seen to facilitate teaching strategies that potentially allow curriculum access to students who may otherwise have difficulties engaging with the curriculum” (Carty & Farrell, 2018, p. 105).

Team Teaching

When the general education teacher and the special education teacher are teaching the whole class (true co-teaching). This model allows for both teachers to present the material and question each other during the lesson. It allows for both teachers to play off each other's strengths. There is a strong need for high levels of trust in this model. This model also requires a great deal of commitment (Carty & Farrell, 2018). “If teachers have chosen to use team teaching, they must determine how to explicitly and collaboratively teach the practice and ensure the practice is implemented as intended” (Cook & McDuffie-Landrum, 2020, p. 222).

One Teaching, One Observing

This co-teaching model is very different compared to the other models. Simply stated, one teacher is teaching the lesson. When using this model, typically the general education teacher is teaching the class while the special education teacher simply collects

data on a particular student or a group of students. These data are used when planning the follow-up lessons. This co-teaching model is seen frequently but only for brief periods of time (Carty & Farrell, 2018).

Teacher-Efficacy

A teacher's belief in their personal ability to assist in student learning. A teacher's efficacy can depend on numerous things. These include previous experiences or experiences within the school environment (Protheroe, 2008).

Summary

Further study on the effects of teacher efficacy from the co-teaching partnership is necessary as well as research on each co-teaching model to complete a full program evaluation of the Marilyn Friend co-teaching effectiveness. Even though other studies exist that show that co-teaching is an effective best practice for students, continued research needs to be completed, specifically focusing on the Marilyn Friend models.

Teacher efficacy affects the environment teachers create for their students. Teachers with a higher sense of self-efficacy are likely to look at new tasks as a challenge rather than a threat. The role of teacher self-efficacy has been found to be a critical component in successful co-teaching partnerships; teachers participating must have a high sense of self-efficacy. According to Bandura (1994), there are four sources of self-efficacy: mastery experiences, performing a task successfully strengthens one's sense of self-efficacy; social modeling, seeing other people completing a task successfully is another way to build self-efficacy; social persuasion, getting verbal encouragement from others helps people to be persuaded to believe they have the skills to succeed; and psychological responses, our own personal responses and emotions play an important role

in building self-efficacy.

Self-efficacy is a critical piece of the co-teaching puzzle; it is important to further explore the ways in which one can build self-efficacy as well as the effectiveness of each of the Marilyn Friend co-teaching models.

In Chapter 2, I conduct a full review of the co-teaching literature, the Marilyn Friend co-teaching models, and teacher self-efficacy. Chapter 3 focuses on the qualitative research design used in the study and why. In Chapter 4, the results of the study are discussed, as well as the strengths and weaknesses of the study. In Chapter 5, I discuss recommendations for co-teaching as well as a summary of the completed research.

Chapter 2: Literature Review

In the world of education today, the No Child Left Behind Act of 2001 (Lee, 2014) and the Individuals With Disabilities Education Improvement Act of 2004 (Wright & Wright, 1998) have led to a transformation in the way students with disabilities are taught in schools. This has also led to a major change in how teachers (general and special education) are working to meet students' individual needs in a more inclusive environment (Murawski, 2010).

The literature review begins with research on Bandura's (1994) self-efficacy theory and how it pertains to general education and special education teachers when teaching students of all ability levels in a co-taught classroom. Included in the literature review is an overview of Bandura's self-efficacy theory and current research on how self-efficacy relates to education and teachers in general as well as how self-efficacy affects teachers when co-teaching. The literature review continues with an overview of inclusion, the history of co-teaching, co-teaching research, and a review of each of Marilyn Friend's six co-teaching models and how they should be used.

Theoretical Framework

The study on teacher self-efficacy has grown and has given researchers an abundance of information. However, the overall concept of self-efficacy is based on psychologist Albert Bandura's (1994) self-efficacy theory. Self-efficacy has become a popular subject of study in psychology and education. Bandura defined self-efficacy as "a person's belief in their ability to succeed in a particular situation" (Cherry, 2020, p. 1). These beliefs of self-efficacy include how people act, feel, and think. Self-efficacy is how people recognize comfortable and uncomfortable situations and how they act as a result.

According to Bandura (1994), one's self-efficacy begins to develop as a child and continues to develop and change throughout life. Bandura referred to four major sources of how to develop a high sense of self-efficacy. These include mastery experiences, social modeling, social persuasion, and psychological responses (Bandura, 1994).

Knowledge and expertise of all different kinds of experiences are the best way to develop self-efficacy. Bandura explained that "performing a task successfully strengthens our sense of self-efficacy" (Cherry, 2020, p. 4). It is important that people put themselves in situations in which they are able to learn and grow. However, if people only experience success that comes without even trying, they in turn come to expect those quick results and become easily disappointed when things do not go as planned or if they have setbacks along the way. Keep in mind that it is extremely important to have those types of experiences that may not have a successful outcome; this also helps to build self-efficacy through experiences. After going through many different mastery experiences (and finding success), people are able to see that they have what it takes to succeed in the task(s) at hand; they in turn create a stronger sense of self-efficacy (Bandura, 1994).

According to Bandura (1994), "seeing people similar to oneself succeed by a sustained effort raises beliefs that others possess the capabilities to master comparable activities to succeed" (p. 1). This is a prime example of social modeling. Based on this, it is important to witness others completing a task that is similar to the task at hand successfully. The impact of social modeling serves best when the task is similar in nature. Modeling influences does far more than provide a means of how to complete a task; it offers acquisition of better methods to complete specific tasks in the future. Seeing, learning, and then doing is another way of building self-efficacy.

Think back to a specific time when someone said something uplifting that led you to fulfill a goal and how that one comment made you feel. This is an example of what Bandura (1994) called social persuasion and is another way to build self-efficacy. Getting encouragement from peers helps others to focus and prompts them to want to give their very best effort (Cherry, 2020). It is in fact more difficult to teach personal self-efficacy by the use of only social persuasion; it takes more (Bandura, 1994). Believing in yourself is a concept that is extremely hard for people to understand and know how to do. Like self-efficacy, it is essentially something you are born with. However, getting verbal affirmations from other successful colleagues helps people overcome self-doubt and in turn builds self-efficacy over a period of time.

Our own personal responses to certain situations are important to building self-efficacy. This is also known as psychological responses. Emotions, moods, physical reactions, and high and low levels of stress all have a significant impact on how a person feels about performing in certain situations. “Psychological indicators of efficacy play an especially influential role in self-efficacy” (Bandura, 1994, p. 2). Learning how to reduce stress when facing tough situations can improve one’s sense of self-efficacy.

Psychological responses are the most abstract step to building self-efficacy. People struggle the most with this step.

Bandura’s (1994) research shows that it is possible to have high self-efficacy only in a specific area. It has been proven that people with a stronger sense of self-efficacy tend to develop a much deeper interest in specific activities in which they participate. They also show a strong commitment to the task; they are always open to innovative ideas; they are able to recuperate from minor problems; and they see new tasks as things

that they must learn and grow from. People with a higher sense of self-efficacy also demonstrate high levels of organizational skills (Cherry, 2020). Bray-Clark and Bates (2003) also showed that teachers with a higher sense of self-efficacy tend to explore multiple methods of teaching, seek to improve their craft, and experiment with their teaching much more frequently.

People with a lower sense of self-efficacy tend to avoid most, if not all, challenging tasks/situations. They believe difficult tasks are far beyond their know-how; they tend to focus more on their failing; and they quickly lose all confidence in their abilities (Cherry, 2020). It is important to note that the perception of a person's inability and low sense of self-efficacy to complete a specific task can come from the lack of information regarding the task at hand.

Many scholars relate self-efficacy to education but especially to teachers. "Teachers' self-efficacy is related to their beliefs in their ability to influence students' overall outcomes" (Krammer et al., 2017, p. 100). Much of the research shows that a teacher's sense of self-efficacy influences their overall teaching behavior. Self-efficacy connects the idea that teachers can create positive outcomes in students' overall classroom engagement and learning of all things (Wilburne & Ozmen, 2017). Van Dinther et al. (2010) researched the relationship between education and self-efficacy. From their research, self-efficacy is linked to strategies teachers and students utilize in the classroom. This is in regard to the goals teachers and students set for themselves. Results of the 2011 research show that teachers and students with high levels of self-efficacy are most likely to perform better in all aspects related to school (Lopez-Garrido, 2020).

Schools serve as a key component for developing students' sense of self-efficacy during the most critical learning years. "School is the place where children develop the cognitive competencies and acquire the knowledge and problem-solving skills essential for participating in the larger society" (Bandura, 1994, p. 7). Therefore, creating learning environments that encourage the development of children relies on the overall self-efficacy of teachers.

To measure their sense of self-efficacy, teachers can use the Teacher Sense of Efficacy Scale (TSES) developed by Tschannen-Moran (2001). The scale is designed for teachers to take a "test" in order to know their levels of efficacy before, during, and after teaching. There is a long form (24 items) and a short form (12 items). Each form asks teachers to evaluate their own ability levels related to student engagement, instructional strategies, and classroom management styles. Teachers rate themselves based on how they feel when performing specific tasks from 1 (not at all) to 9 (a great deal). Once all questions have been answered, the mean of their efficacy levels in each of the categories must be scored and measured according to the Tschannen-Moran reliability score sheet. This will in turn give teachers their self-efficacy score (Tschannen-Moran, 2001).

In a 6-month study (of 21 teachers in a midwestern school district) about the importance of teacher efficacy in the English language arts (ELA) classroom, Tschannen-Moran et al. (2017) found that teacher self-efficacy was connected to ELA achievement, despite the curriculum that was used. The study also showed that (at the secondary level), teachers reported various levels of self-efficacy. This was based on the different classes and students they taught. Overall, students who were instructed by teachers who believed they could influence students showed higher reading and writing scores in comparison to

the students whose teachers believed otherwise (based on their end-of-course assessments). Tschannen-Moran et al. noted that teachers with a high sense of self-efficacy (based on the TSES) tend to devote more time to academic activities and work hard to provide all students with the guidance needed to succeed. In contrast, teachers identified with low self-efficacy are likely to give up on students who exhibit teaching challenges and often criticize students for poor performance and academic failures. Research also suggests that teacher preparation programs and ongoing professional development in ELA can impact teacher self-efficacy in a positive way. In addition to the improved ELA instruction, the results are likely to reflect greater effort from the teachers and a reduction in the teacher turnover rate in ELA classrooms (Tschannen-Moran et al., 2017).

McCain's (2017) study showed how 12 teachers at four different middle schools (with at least 5 years of experience) in a Georgia school district perceived how a low sense of self-efficacy affects their overall management in the classroom. It was noted that teachers with a low sense of self-efficacy experienced various classroom management issues. After a thorough analysis, the data showed several common themes, including building relationships, being flexible, conveying expectations, and making a difference. Most of the middle school teachers were confident when describing their self-efficacy levels based on each of the four themes. However, some teachers stated they were planning on leaving the profession (at the end of the school year) due to an overall low sense of self-efficacy that affected their classroom performance. Current and former middle school teachers agreed that by having a level of confidence in their classroom, they were able to focus on the success of all students. These included being a caring,

loving, supportive adult role model for their students. They were also able to focus more on being personable, understanding, positive, and willing to listen to their students. All these things impact their overall classroom management. Throughout the study, data were collected using interviews, surveys, direct observations, questionnaires, and focus groups (McCain, 2017).

Additional studies continue to look at the overall relationship between teacher self-efficacy and education. A recent quantitative study investigated the differences in the levels of teacher self-efficacy and current instruction of 21st century skills between elementary, middle, and secondary teachers in southeastern Pennsylvania. To measure the results, the TSES and the 21st Century Teaching and Learning Survey were used. The findings showed that there is a strong connection between teacher efficacy and instruction of critical thinking skill scores, collaboration skill scores, creativity and innovation skill scores, local connection skill scores, and self-direction skill scores in classroom practice. The study also revealed that the higher a teacher's sense of self-efficacy, the more effective the teacher is (Davis, 2018).

It is also important to note that teachers who have a high sense of self-efficacy are less likely to refer a student with difficulties to the office or into a special education program. They see working with this particular student as a challenge they must work towards bettering. In contrast, teachers considered to have low self-efficacy struggle when working with difficult students and students with disabilities. They feel the task is far too much for their credentials and in turn, refer those students to a special education program for additional support (Protheroe, 2008).

In Wynn's (2018) study, students with autism entered a classroom with a general

education teacher. This particular study examined the levels of self-efficacy of 11 female teachers who taught students with autism (in the general education classroom). The research was conducted in a rural North Carolina school district. Kindergarten through fourth-grade teachers from three different schools in the same district were used for the study. Teachers in the study were asked to discuss their experiences when teaching students with autism inside of a general education classroom. To record their findings, teachers completed a two-part survey. In Part A, they were asked to give their opinions regarding the benefits of including students with autism in the general education classroom as well as their overall preparedness levels. In Part B, they were asked to score their level of agreement with specific statements in order to determine their self-efficacy levels. Findings from the study compared teacher preparedness (to see if it made a difference) based on the teachers' self-efficacy levels. The research concluded that teachers who had more training when working with students with disabilities and past education experience were also the teachers who showed higher levels of self-efficacy. These teachers were able to provide modifications and adjustments that are required to meet the needs of students with autism. On the other hand, the teachers in the study considered with a low self-efficacy struggled to provide proper services to students with autism in the general education classroom. They felt they were not properly trained and were unable to meet all students' needs in the same classroom (Wynn, 2018).

Multiple studies have shown that teachers with a high self-efficacy in relation to their teaching ability and content produce greater student achievement in a variety of subject areas. For example, Ross et al. (2001) showed that students in a high school computer class with a teacher who had high self-efficacy (based on a survey at the

beginning of the school year) for computer instruction performed better academically on the end-of-course assessment. This was in comparison to students in another computer class teaching the same content with a teacher who rated themselves with a low sense of self-efficacy (Bray-Clark & Bates, 2003).

Based on research and multiple studies, it is evident that self-efficacy does in fact have a strong impact on education and teaching in general. Teachers who are considered to have a higher sense of self-efficacy have proven themselves to perform better in all aspects of education. “Teacher self-efficacy is important for overall school effectiveness” (Wynn, 2018, p. 3).

Self-Efficacy and In-Service Training

“Self-efficacy is a critical component in teacher effectiveness” (Bray-Clark & Bates, 2003, p. 14). Therefore, ongoing in-service training for teachers aids in building teacher self-efficacy. High levels of self-efficacy can increase the willingness of teachers to learn and transfer skills during in-service training, especially in regard to new initiatives. Research from Gist (1986) has shown that teachers with high levels of efficacy tend to perform better during in-service training opportunities. Therefore, it is crucial that teacher training is designed to improve the overall teacher knowledge that will in turn enhance student outcomes.

It is no secret that in-service training has the ability to enhance teacher effectiveness in the classroom. Therefore, enactive mastery should be used in training to ensure that all teachers have the opportunity to learn new teaching methods and content being taught before they are expected to do the same in their classrooms. This goes back to Bandura’s (1994) mastery experiences and allows teachers to master the new concept

before full implementation in the classroom. Bray-Clark and Bates (2003) suggested that the enactive mastery component should have clear expectations and should be well-planned so teachers will be more likely to use their new learning when they return to their classrooms.

The use of vicarious experiences is another way to design in-service training for teachers. This is the belief that teachers can build their self-efficacy through observations of a particular model/initiative performed by another teacher that is relevant to their classroom needs. During in-service training, there should be activities and specific times set aside that provide teachers the opportunity to see other teachers using the new learning they are expected to use in their classrooms. This allows teachers the opportunity to build their self-efficacy as they are able to observe and then implement, creating a level of comfort (Bray-Clark & Bates, 2003).

Verbal persuasion is another potentially valuable tool to use during in-service training of a new initiative. Positive communication/affirmations from well-respected peers can affect a person's levels of self-efficacy. This is seen during informal types of learning during professional development opportunities. Verbal persuasion is used the most when building one's sense of self-efficacy. However, it is important to note that this particular step should not be confused with surface-level praise only for the sake of reinforcing a false sense of self-belief, as this has the potential to cause more harm than good (Bray-Clark & Bates, 2003).

Access to professional development centered around co-teaching practices is important in education. This is particularly important for general education teachers who are teaching students with disabilities. Research has identified that a teacher's level of

self-efficacy affects the knowledge and implementation of new strategies. A recent study in Kansas looked at the relationship of professional development opportunities based on inclusive practices building teacher self-efficacy. A total of 250 early childhood teachers were selected to participate in the study. Participants took an electronic survey related to professional development and teacher self-efficacy to complete at the beginning of the study. Of the 250 teachers, 62 completed the survey. Results indicated that there were significant relationships between teacher self-efficacy and teaching students with disabilities. Based on the study, professional development activities should allow teachers to practice and then work to apply newly learned skills within their classrooms (Francois, 2020).

Teachers play a major role in student achievement. Additionally, teacher self-efficacy has a major effect on teachers' impact and students' overall achievement. Therefore, it is critical that teachers receive appropriate professional development that enhances their overall self-efficacy. Even with a strong focus on providing professional development, it is believed by teachers to be ineffective and lacking in relevance to their current classroom needs. There are a total of four sources of efficacy. These add to feelings of confidence and can be incorporated within professional development. McSweeney's (2019) qualitative study conducted at William and Mary College in Virginia used interviews, focus group meetings, teacher journals, and field notes to answer the questions related to the study. Results revealed that teachers do in fact find value in learning in order to perfect their craft. Based on the teacher survey, teachers noted that they wanted time to learn, meaningful collaboration with their peers, and teacher choice in participating. Teachers continue to benefit from the self-efficacy

sources of mastery experience and emotional arousal. Based on results from this study, it is critical that school districts provide teachers with opportunities to practice and experience new learning in order to build their efficacy within specific learning activities (McSweeney, 2019).

School districts across the United States are now under great pressure to design in-service training that allows teachers to build their self-efficacy in regard to new initiatives before their full implementation. Focusing on enactive mastery, vicarious experiences, and verbal persuasion has the ability to provide schools and staff with the necessary tools they need to build a high sense of self-efficacy. These things also allow for the most effective in-service training for teachers in order to improve overall teacher knowledge to ultimately enhance student outcomes.

Teaching Students With Disabilities – Inclusion

The Individuals With Disabilities Education Act (2004) required all school districts to provide a free and appropriate public education for all children. This meant that education should be provided in the least restrictive environment for each child. For students with disabilities, this meant they would be taught in the same schools and same general education classes. This complete restructure is known as inclusion (A History of Improvement and Inclusion in Special Education, 2010).

Inclusion is simply defined by Merriam-Webster (n.d.b) as the act of including students with disabilities with the general student population. In the majority of general education classrooms, students with a variety of needs are placed in their true academic grade levels to receive direct instruction.

In the ever-changing society of the 21st century, much of the push for inclusion is

in relation to student IEPs and the push for students to receive the majority of their educational services in their least restrictive environment; this includes the general education classroom. This means they are with their general education peers to the maximum extent possible. However, this does not mean that students with disabilities never spend time outside of their general education classes. It means that students are included in the majority of the school day with their nondisabled peers and are pulled out of the general education classroom by a special education teacher to receive further support in specific areas of need (McManis, 2017).

Inclusion is on the constant rise, as McManis's (2017) research has shown that both students with and without disabilities truly learn more by being in the general education classroom. Research has shown over the past few years that students with disabilities and without disabilities have academic gains in the areas of reading, writing, math, and social studies based on standardized testing. Both sets of students have also shown better communication and social skills. Students with disabilities and without disabilities benefit from the various types of learning as teachers are now considering a diverse student population. Students are provided with a wider range of learning modalities, which benefits all.

Successful inclusion happens when teachers and students accept and understand student diversity. Students with disabilities participating in the inclusion process can include physical differences, cognitive differences, academic weaknesses, and social and emotional disabilities.

Best Practices During Inclusion

“There is a definite need for teachers to be supported in implementing an

inclusive classroom” (McManis, 2017, p. 3). Teachers must feel that they are knowledgeable and confident to teach students with disabilities. This happens through proper training, practice, and modeling. McManis (2017) suggested starting with whole-group instruction and slowly transitioning to working in various groupings by academic skill level. Groupings can consist of a small group working with the teacher, a small group of students working on specific stations (these are hands-on activities related to current learning or previous learning), and partner work. It is important to use technology as a way to engage all students.

According to Lathan (2019), there are four important strategies for teachers to know and understand when designing and implementing inclusion in general education classrooms: Universal Design for Learning (UDL), multiple means of representation, knowing background information, and classroom management.

UDL is a concept that every person has their own learning style, and each of these styles is very different. The three main concepts of UDL are representation (the what of learning), action/expression (the how of learning), and engagement (the why of learning). Understanding the components of UDL is important for teachers who are implementing inclusion in the general education classroom.

Using multiple means of representation is a critical component for successful inclusion. Some students are visual learners and need lots of pictures; others may require oral administration of all content; and some need to use technology for all instruction. However, the majority of students do best with a good mix of various techniques. Various types of teaching support the needs of all students in the classroom and allow everyone to learn in their own way and at their own pace (Lathan, 2019).

Knowing critical background information on students is critical for any teacher to know in order to best serve students while at school. Therefore, in order to create a successful inclusion classroom, it is most important that teachers familiarize themselves with background information about students with disabilities based on their current IEPs or 504 plans. Teachers are required by law to follow the IEP and provide all necessary accommodations and/or modifications (Lathan, 2019). Each of these legal documents allows the general education teacher to further support the students with disabilities while they are in the general education classroom.

Classroom management is a critical component of successful inclusion. A good behavior management plan can assist teachers when students are exhibiting negative behaviors. It is important that the behavior plan is shared with everyone involved with the student so everyone is aware of the potential rewards and consequences. There are multiple behavior plans teachers can use based on the specific needs of the student (Lathan, 2019).

Best practices for schools incorporating inclusion are to simply focus on all students learning together; give teachers frequent assistance and support; focus on all students' abilities not their disabilities; honor the needs of all students; and most importantly, celebrate the unique diversity (Lathan, 2019). Schools should also include trans-disciplinary teaming, block scheduling, multi-age student grouping, looping grade levels, schoolwide positive behavior interventions, and clearly communicated discipline approaches. These initiatives help to facilitate the inclusion process (Villa & Thousand, 2021). It is crucial for educators to keep in mind that inclusion is very different from co-teaching. Inclusion simply allows students with disabilities to be a part of the general

education classroom.

Inclusion Studies

Think Inclusive (1970) studied and reported on the progress of students with disabilities in general education classrooms compared to students with disabilities in self-contained classrooms over the course of a 2-year time span. Data revealed that 47% of students with disabilities who were included in the general education classroom made significant progress in the area of math. This was in comparison to the 34% in the self-contained classes. Reading progress from both sets of students was comparable in both settings (reading data were not given in the study). However, the study also found that typical general education peers made higher gains in math when students with disabilities were in the general education classroom. Based on multiple observations, Lathan (2019) found that the extra help and additional support in these classes created positive gains for all students in the class, regardless of ability level.

A study in 2013 of more than 1,300 students between the ages of 6 and 9 years old within 180 school districts across the United States found that access to general education truly matters (Cosier et al., 2013). The study found that over the course of a school year, the time actually spent in general education classes for students with disabilities resulted in higher scores in reading and math. The study looked at data from report card grades at the end of each quarter as well as standardized test data in reading and math. Numerous classroom observations were conducted for data purposes. Based on this study, inclusion is seen as an effective model in the elementary setting (Cosier et al., 2013).

Sermier Dessemontet and Bless (2013) found that the majority of parents and some teachers continuously made the argument that general education students are

negatively affected by students with disabilities in the same classroom. This is mainly due to behavior concerns and parents assuming that general education students will follow the behaviors that may be caused by students with disabilities. However, Sermier Dessementet and Bless found that is not the case. In fact, the study found that nondisabled students performed better as they were able to receive extra support they may not have if there were no students with disabilities in the general education classroom. Sermier Dessementet and Bless also noted there were no major differences found in the overall progress of students without disabilities who were a part of an inclusion class in comparison to another class with no inclusion taking place. The overall results suggest that including students with disabilities (specifically an intellectual disability) in general education classrooms does not have a negative impact on the progress of students without disabilities (Sermier Dessementet & Bless, 2013)

A final inclusion study looked at the results of 12,000 students ranging from ages 13 to 17 across multiple school districts randomly selected across the United States (Wagner et al., 2006). The students as a part of the study were labeled with various disabilities. Data revealed that the more time spent in a general education classroom in turn created fewer absences from school, fewer office referrals for outbursts and negative behaviors, and much more postsecondary education and employment options for students with disabilities after graduation (Wagner et al., 2006).

Teaching Students With Disabilities – Co-Teaching

Historically, special education meant working with the various needs of students with disabilities in a separate classroom from students without disabilities. As times changed and schools/districts moved to meet the needs of all students in innovative ways,

co-teaching was born.

Co-teaching is a well-known service delivery option for providing services to students with disabilities inside of a general education classroom with general education students. “Many schools have implemented co-teaching as a way to meet the needs of diverse learners (Colson et al., 2021, p. 20).

Co-teaching is “one general education teacher and one special education teacher assigned to a single classroom for the purpose of jointly delivering general education curriculum and instruction to students with and without disabilities in the general education classroom” (Johnson & King-Sears, 2020, p. 51). This collaboration requires teachers to not only partner together but also work together in creating/delivering specialized instruction, planning, classroom management, and conducting student assessments.

Co-teaching was first mentioned in the mid-1980s as a way of achieving what was then a far-fetched goal. During the 1980s and most of the 1990s, co-teaching was used randomly in various school districts and schools of all levels across the nation. However, at the time, the emphasis was focused only on combining students with disabilities into traditional general education classrooms, mainly for social opportunities. There was little academic learning and support taking place for the students with special needs.

Fast forward, with the turn of a new century, and one could say there is an increasing demand for implementing co-teaching. Co-teaching is now an everyday service delivery option. Co-teaching has become progressively focused on the instructional quality students should receive in all subject areas for all students with an IEP (Friend et al., 2015).

Even though a student with an IEP is in a co-taught class, the student will continue to receive direct instruction that is connected to their IEP goals. The student can still receive services for academics, organization, and behavior. The student will receive all appropriate accommodations; the location of service will now be in a general education classroom. Progress monitoring is still ongoing. Special education teachers continue to have the same responsibilities; that is, to provide specifically designed instruction to ensure students reach their IEP goals.

It is imperative to keep in mind that special education services should be provided in the student's least restrictive environment. The ultimate goal of the least restrictive environment is for students with disabilities to spend the least amount of time possible isolated in a separate classroom and more time with their general education peers, as it fits their needs (Rexroat-Frazier & Chamberlain, 2018).

Research on co-teaching is continuously evolving. There are many benefits that have been identified. Co-teaching encourages the inclusion of students with disabilities to be with other general education students. Co-teaching also reduces the never-ending stigma surrounding special education. Co-teaching reduces the breakdown of instruction for students with disabilities and allows them to obtain the same instruction. It also provides the consistency of an instructional setting (remaining in the general education class). Research shows that the number of disruptions within the classroom is fewer, and because of this, more general education content is covered (Chitiyo & Brinda, 2018).

A 2020 New Jersey research study focused on the six co-teaching models (based on Marilyn Friend) and how those can affect the behaviors/classroom disruptions of second-grade students in a co-taught classroom (Maxwell, 2020). Over an 8-week period,

10 students with disabilities were selected to participate in the study. Research was obtained through the use of observation notes, journals, and student behavior charts. The data revealed that one teach, one assist and team teaching had the most classroom disruptions. However, the remainder of the co-teaching models had fewer classroom disruptions and more content was covered throughout the duration of the lessons. The co-teaching models with fewer classroom disruptions are station teaching, alternative teaching, parallel teaching, and one teach, one observe (Maxwell, 2020).

It is important to keep in mind that co-teaching may occur only for a single class period or half of a class period, although students with disabilities can access co-teaching in any subject area. In elementary schools, co-teaching occurs for a brief period of time (30-45 minutes a day), whereas in the middle and high school settings, co-teaching occurs for a longer period of time (60-90 minutes daily; Friend, 2008).

Best Practices in Co-Teaching

Recommendations for the best practices in co-teaching are widespread throughout the research. According to Friend (2008), there are five main components in order for co-teaching to be the most successful: teacher preparation, participating (by choice), planning, scheduling, and principal/district support.

Like all new initiatives, it is important to ensure that the staff involved have the proper training. “The common theme found across the literature was a need for teacher training for individuals involved in co-teaching” (Rexroat-Frazier & Chamberlain, 2018, p. 174). Professional development should be provided to specific groups for specific purposes related to co-teaching. All teachers involved in co-teaching should attend some type of co-teaching training together. It is suggested that special education teachers

should have some background knowledge of the subject area in which they will be co-teaching (Rexroat-Frazier & Chamberlain, 2018). When preparing for co-teaching, it is important to keep in mind that both sets of teachers are responsible for each of the students. This will be seen and conducted in various ways. As always, the general education teacher will have the core knowledge of the specific curriculum being taught. The general education teacher should also have the ability to manage a group of students with varying ability levels, have an understanding of typical learning patterns, and be able to pace the instruction so what is expected by state standards can be accomplished. On the other hand, the special education teacher should have in-depth knowledge of the processes for providing accommodations, modifications, and remediation. Special education teachers should also have an understanding of each student's needs (as well as everything in their IEPs) and have a strong understanding of mastery learning (Friend, 2008).

To show the importance of teacher preparedness, a study of teachers in the northeastern part of the United States focused on the importance of teacher preparedness in co-teaching (Chitiyo & Brinda, 2018). For the study, there were a total of 77 general education and special education teachers. Elementary, middle, and high school level teachers were a part of the study. Data were collected by a questionnaire (divided into three sections: demographics, knowledge of co-teaching, and a rating of co-teaching preparedness). In summary, the results from the study showed the need for teacher preparedness when co-teaching. The questionnaire revealed that not all teachers were trained; consequently, they require additional support. Teachers stated that they were unable to effectively implement co-teaching due to the lack of training (Chitiyo &

Brinda, 2018).

Many teachers are given a co-teaching assignment without the proper training. In another study, there were a total of 48 general education and special education teachers from four middle schools and three high schools in a northeast region of the U.S. (Faraclas, 2018). For the study, a pretest and posttest were given to all the participating teachers over the course of 15 weeks. Participants completed a demographic survey, and data were also collected through classroom observations. Professional development began after initial observation of each of the co-teachers in order to see where each teacher needed the most support. Professional development was provided five times for a total of 2 hours each session. Each session was based on each of the Marilyn Friend co-teaching models of planning, instruction, and classroom and behavior management. After all professional development sessions were complete, the teachers were then observed again as well as rated themselves based on the post-assessment. Data showed that each teacher's scores in fact increased after receiving adequate professional development in co-teaching (Faraclas, 2018).

The importance of choice in participating in co-teaching cannot be emphasized enough. Choice is the critical starting point of co-teaching which in turn can make it or break it. Using volunteers provides participants the opportunity to try out all co-teaching models, and those volunteers are able to fine-tune the co-teaching program at their school (Friend, 2008). Teachers believe they have input in what they will be teaching and with whom they will be teaching. Along with the choice in participating, the selection of teachers is also important when implementing co-teaching. Partnerships between various teachers should be chosen carefully by the administration team to guarantee the pair will

work well together. Once teachers have agreed to participate, they should complete an inventory to identify their philosophy of teaching. This will help to determine specific shared beliefs between the sets of teachers (Rexroat-Frazier & Chamberlain, 2018).

Co-planning is the most important part of any successful co-teaching partnership. The partnership between the general education teacher and the special education teacher can be a great way to plan and deliver instruction to both general education students and students with disabilities. The planning time teachers have should be purposeful. Most importantly, the students in each co-taught class need to be considered when planning lessons. It is important that co-teachers are on the same page about what will occur in the lessons. Teachers should have a clear understanding of the instructional models that will be used as well as any accommodations/modifications that will be given to particular students. All of this occurs through collaborative planning that should happen multiple times a week. This planning time allows both teachers to share their knowledge and come to agreements about how instruction will take place to best meet all students' individual needs (Pratt et al., 2016).

During co-planning, it is important that teachers stay focused on the overall end goal, whether it is an end-of-course state assessment or simply a unit test based on state standards. During planning time, teachers should develop assessments, review student data, develop student groupings, design differentiated assignments, and make other curriculum accommodations (as needed). It is ideal for teachers to have common planning periods, but that is not always possible. Other options for planning can include having a substitute teacher come in monthly, using saved time, organizing meetings, replacing duties, or biweekly planning (Murawski & Bernhardt, 2016). Co-teachers

should attempt to work together daily or weekly in order to plan for the following day's instruction. It is not necessary that the teachers meet in person. The teachers can create a shared planning template where they can both input their information and collaborate with each other. Teams may have to get creative when it comes to planning. Co-planning allows for co-teachers to divide and conquer. It is important to keep in mind that responsibilities should be divided based on experience and comfort levels. When planning, it is important to pick what works the best for your school and all co-teaching teams.

It is critical that all staff involved in the scheduling process for co-teaching also understand the basis for creating a true co-teaching environment (Murawski & Bernhardt, 2016). When scheduling students for co-teaching, it is important to keep in mind that co-taught classrooms should be heterogeneous groupings, meaning there should be mixed ability levels in the general education classroom. Rexroat-Frazier and Chamberlain (2018) cautioned against schools randomly generating class rosters. Instead, research suggests handpicking the students who will participate in co-teaching. One way to do this is by scheduling students who will receive special education services first. During scheduling, it is crucial that the school administration team rely on the expertise of the special education teachers to decide which students are potential candidates for the co-taught classes. To ensure personalized instruction, no more than six students (of 25) with an IEP should be identified in the same general education classroom. The overall class makeup in a co-taught classroom can easily affect student success (Rexroat-Frazier & Chamberlain, 2018).

“If your principal only knows one paragraph of information about co-teaching, it

is going nowhere” (Friend, 2008, p. 16). All the recommendations for co-teaching are important, but it is crucial to emphasize the support of the principal and district personnel. Without the proper support from all parties, co-teaching is not very likely to succeed. Principals should help all teachers, students, parents, and other staff members prepare for co-teaching and inform all parties of what is expected throughout the process. At the classroom level, the support should be focused on instructional strategies as well as the responsibilities of teachers involved in the process. While in the classroom, principals should look for a strong partnership between the two teachers. Principals should also look for evidence of student success through the mastery of IEP goals and instructional content. At the school level, support should be in the form of assisting with scheduling, providing adequate space to carry out co-teaching and assisting with the implementation and planning (if needed). Principals should arrange a common planning time and assist with other necessary duties to ensure that co-teaching is practical for everyone involved. Co-teachers can encourage continued principal support by sharing their successes through academic data (Friend, 2008). At the district level, support should be given by continuous professional development, allocation of resources/funds, and providing necessary feedback (Rexroat-Frazier & Chamberlain, 2018).

Friend (2008) stated that co-teaching has the potential for improving the overall achievement of students needing additional academic support. However, for co-teaching to be most effective, each of the strategies mentioned must be addressed and planned for. This guarantees that all students have access to the same curriculum in the same classroom.

Marilyn Friend Co-Teaching Models

Co-teaching has many different formats, all based on students' instructional needs. There are six models of co-teaching based on Dr. Marilyn Friend's co-teaching guide. They include some that are for periodic use: one teach, one assist (where only one teacher teaches the content and the other simply assists during the lesson) and one teach, one observe (where one teacher observes a specific student while the other teacher teaches the lesson). There are other strategies recommended for daily use. These include station teaching (where teachers divide the content and split the class in order to teach in small groups, then switch), parallel teaching (the class is split in half, and the same topic is presented to both groups at the same time – this model allows for more small group instruction to take place), alternative teaching (where both teachers are teaching different concepts based on student need), and teaming (where both teachers work together to deliver content to the entire class; Hanover Research, 2012).

It is important for teachers to note that there is a time and place for each of the Marilyn Friend models. Teachers must know when to use each model based on the lesson being taught and the skill levels of their students. Choosing the right co-teaching model results in students with disabilities learning the grade-level curriculum as well as strategies to succeed outside of the classroom.

Pros and Cons of Marilyn Friend Co-Teaching Models

As with any initiative, there are pros and cons that are important to know and recognize with implementation. The same is true with each of the Marilyn Friend co-teaching models. It is important that both sets of teachers understand all the positives of each model as well as have an understanding of the parts that may not work out so well.

One teach, one assist can be very helpful for a new set of co-teachers. This model allows for teachers to ease into co-teaching. This model also allows for both teachers to view and learn the other's teaching styles. This model is best used when teaching math, as it allows one teacher to assist the students with learning a new math concept. Friend (2019) suggested that this is the most used of all co-teaching models. However, her same research stated that this is the least effective co-teaching approach because it fosters dependent behavior and may distract students from the lesson (Friend, 2019). Teachers should keep in mind that this model is for limited use in the classroom.

While using the one teach, one observe model, teachers are able to gather pertinent information multiple times during a lesson so any adjustments can be made quickly. These adjustments are usually related to specific assessment information. However, using this model creates a risk that the teacher assigned to collect data will be known as only an observer/assistant in the classroom. This in turn can lead to the inability to perform the necessary duties when it comes to leading a lesson and, because of this, should be for limited use (Friend, 2019).

Station teaching should be used frequently and, because of this, has numerous benefits including additional small group time with teachers which leads to more personalized instruction for all students and fluid student groupings (changing as students master taught concepts). This model does require three student groups at all times. Two stations are led by both teachers in the room, and the third group is an independent student group. Potential problems with this model are time constraints as teachers need to see all groups and with limited time, this model makes it difficult to achieve this goal. This model also requires students to be able to complete work in any order as well as be

able to work independently. Teachers must ensure that with intentional planning beforehand (Friend, 2019).

In the parallel co-teaching model, a benefit is the true co-teaching partnership, as both teachers contribute to student learning. Parallel teaching also decreases the student-to-teacher ratio and allows for more individualized instruction based on the students' IEPs. Parallel teaching provides those built-in opportunities for differentiation. However, the noise levels in the classroom can become very high and can make it hard for students to stay focused. Another con is that if both teachers are not adequately prepared to teach the lesson, certain groups of students will get even further behind (Friend, 2019). Even with some cons, parallel teaching should be used frequently.

Alternative teaching creates a different kind of co-teaching partnership. Both teachers are responsible for teaching students various skills; therefore, most of the lessons taught are completely different concepts. This small group model can be used in a variety of ways: reteaching, remediation, pre-teaching, makeup time, etc. Problems with this model do exist; therefore, this model should be used sparingly. Teachers need to be aware of students missing the core instruction because they are in another group learning a completely different concept (Friend, 2019).

The teaming co-teaching approach allows for both teachers to plan highly engaging/hands-on activities (since the two teachers are leading the group together). Teaming allows for students to see two teachers working together (general education and special education). A strong relationship between the two teachers makes this model most effective. On the other hand, teaming can result in only "skimming the surface" of content because the class is led only in the whole group and there are no chances for

small group instruction. It is important for co-teachers to keep in mind that this particular model is not recommended for use unless both teachers have prior co-teaching experience (Friend et al., 2015). Teaming is suggested for occasional use.

Deciding on a Co-Teaching Model

Within the six Marilyn Friend co-teaching models, teachers must still address the students' IEP goals and objectives of students with disabilities. Therefore, many factors go into a teacher's overall decision-making about which co-teaching approach to use. These factors are based on the number of students in the class, which teachers are involved, and the specific lesson/curriculum being taught.

First and foremost, teachers must focus on establishing co-teaching routines for all the students involved in the process. Teachers must also measure the effectiveness of the model chosen for the lesson (this ensures the particular model being used will allow the concept to be retrieved by the students). If students are considered mature and have little to no behavior difficulties, nearly any co-teaching approach will be appropriate (as long as it flows with the lesson). If students in the class have difficulty working independently, the co-teaching models that require students to complete independent activities will not be most appropriate.

If teachers are new to co-teaching, it is important that teachers focus on the co-teaching models that allow for practice and time to create a lasting partnership. This is the time where one teach, one observe and one teach, one assist are beneficial. Once both teachers have the experience and become more comfortable with one another, nearly any approach will be effective, depending on the lesson being taught.

Co-teachers will more than likely use all the co-teaching models. However, co-

teachers should realize that the models used will change on a day-to-day basis. When choosing a model, teachers will look at student groupings, order of instruction, and the need for teacher-led and student parts. The actual lessons being taught have the most effect on how to choose an appropriate co-teaching model (Friend et al., 2015).

Studies and Examples Based on the Marilyn Friend Co-Teaching Models

Carty and Farrell's (2018) high school study showed that during 7 weeks of instruction, there were a total of 32 math lessons that were co-taught using five of the six Marilyn Friend co-teaching models (the one teach, one assist model was not used for the study). The findings are based on reflective journals, observations, and interviews. During the one teach, one assist model, both teachers believed it was the most natural. This model does not create a power struggle between the two teachers. In this study, both teachers rotated between one teaching and one assisting so both teachers played an active role. The teachers noted that the students in the class did well with this model and had no issues with asking questions of either teacher. Overall, both teachers rated this model as effective.

During the study, station teaching was used primarily for re-teaching and independent practice (Carty & Farrell, 2018). Based on this, both teachers' reflections revealed that students were more willing to engage in difficult activities and that they were able to peer coach one another. This model was also rated as effective. Both teachers reflected positively on the teaming co-teaching model. It was noted that the teachers really enjoyed the fact that they were able to teach the exact same concept (just taught in different ways in order to meet students' individual needs). Those same teachers also tried teaming with one teacher recording on the board and the other teacher orally

giving instructions. This model was rated as effective, especially with keeping all students on task.

Alternative teaching came with several challenges (Carty & Farrell, 2018). For the study, students were allowed to select which math group they would attend (given the choice between two groups). Creating the smaller group that needed more assistance was the most challenging. One group was with the special education teacher teaching a remedial concept and the other group was with the general education teacher teaching another concept. However, students did not seem to understand the purpose of this model and found it difficult to know which group they should go to. Once this situation was sorted out, both teachers really enjoyed this model. This model too was rated as effective. Both teachers liked the flexibility of students getting to move between the two groups in order to meet their current needs (Carty & Farrell, 2018).

Parallel teaching was used on five different occasions for this study (Carty & Farrell, 2018). Based on two of those occasions, both teachers felt it was a disaster because the students could not concentrate due to the noise level throughout the room (from both groups). The teachers eventually found a way to make it work (one teacher had to relocate to another room). This made both teachers feel that they were no longer co-teaching since they were not in the same physical space. Even with the same lesson planned, content was not delivered the same due to different questions arising and the lesson going in a completely different direction. This co-teaching model was rated as fair by both teachers. This model requires even more coordination to make it work. Based on this study, it is important to implement a wide range of the co-teaching models to allow for greater differentiation with all lessons. This will ultimately benefit all students (Carty

& Farrell, 2018).

Another study investigated two co-taught elementary classrooms in a southern state (Brendle et al., 2017). One classroom was fifth-grade reading and the other was fourth-grade math. Data were collected from a total of four teachers (two general education and two special education teachers). For the study, ratings, interviews, and observations of each classroom were the data sources used. The fourth-grade co-teaching team focused on the team-teaching approach. In the fifth-grade setting, the teachers functioned completely separately, providing instruction only to their assigned group of students (based on the Marilyn Friend models, this is also known as parallel teaching). Based on the data from the study, two conclusions were drawn. Both sets of teachers lacked expertise in implementing the Marilyn Friend co-teaching models. Observation data revealed there was little to no communication between the teachers. All teachers in the study reported the strong need for additional training to better understand each of the co-teaching models and the best strategies to implement them effectively. The special education teachers felt they were only used as a specialist in adapting or modifying assignments. The other conclusion from the study is the strong need for more planning time for both teachers. Based on observations, it was clear that the teachers were not on the same page because there was a lack of preparedness and know-how throughout both lessons (Brendle et al., 2017).

A study conducted by Hanover Research (2012) found that in secondary math courses, team teaching was used most frequently as this model allowed teachers to work closely together during instruction. Additional research revealed that the special education teacher in the room was used only as a support for the general education

teachers during instruction. The Hanover Research (2012) study found that the one teach, one observe model was most used at the secondary level (especially in math). However, based on student data, it was determined that this model was ineffective (Hanover Research, 2012).

During the 2004-2005 school year, a study with a total of 45 teachers and 58 students focused on using the Marilyn Friend co-teaching models (Hang & Rabren, 2009). The purpose of the study was to gather information on how the teachers and the students felt about co-teaching as well as to look at the success of co-teaching. It is important to know that all participants were new to the co-teaching experience. For the study, data were gathered through classroom observations, surveys, and important related records. Hang and Rabren (2009) found that the achievement increased for students with disabilities based on standardized tests from the previous school year (when co-teaching was not implemented). Those involved in the study had nothing but positive things to say about the co-teaching experience. Based on the findings from this particular study, co-teaching is in fact an effective strategy for teaching students with disabilities (Hang & Rabren, 2009).

A 2010 co-teaching study from St. Cloud State University in Minnesota was conducted with the collaboration of Dr. Marilyn Friend. Data revealed that in the area of reading, there was a 74% increase in test scores from students with disabilities. This is in comparison to the general education classroom without co-teaching where students with disabilities had an increase of only 53%. In the area of math, the findings showed the same outcome. There was a 72% increase in test scores for students with disabilities in the co-taught math classroom and only a 55% increase for students with disabilities

without the use of co-teaching in the area of math. It is important for other researchers to know that these data were collected over the course of 4 years using the various Marilyn Friend co-teaching models. It was proven that students with disabilities in co-taught classrooms outperformed students with disabilities who only received additional academic support outside of the general education classroom (St. Cloud State University, 2010).

Samuels (2020) conducted an interview with Dr. Marilyn Friend. The interview was focused on the partnership between special education teachers and general education teachers as well as co-teaching. When asked if a co-taught classroom should look different from a classroom with only one teacher, Friend stated that co-teaching may not look so different at the elementary level. However, at the middle and high school levels, there should be a drastic change. No matter the grade level, it is still just as important for both teachers to work with all students. Instructional intensity can be used by implementing many strategies for all students in the classroom, such as small groups and differentiated work. When asked about the kind of preparation for teachers as part of the co-teaching process, Friend stated that ideally, both sets of teachers should attend a co-teaching training together (Samuels, 2020). However, if this is not possible, teachers need to work together in order to have an understanding of what the classroom will look like and discuss each other's roles (Samuels, 2020).

Self-Efficacy Studies in Co-Teaching

Multiple studies have looked at the attitudes of general and special education teachers. Studies found that the majority of teachers have a positive attitude towards co-teaching. Although co-teaching will be very different (in regard to responsibilities and

specific model[s] being utilized) in various schools and classrooms, the overall goal remains the same.

A recent partnership led by Penn State developed Project Excellence (Wilburne & Ozmen, 2017). This project studied teacher self-efficacy during a 3-month period while they were co-teaching. The study addressed the following research question: “Does participation in a co-taught classroom promote teachers' self-efficacy?” This project allowed novice teachers to co-teach with another teacher to explore their self-efficacy. Prior to beginning the co-teaching model, all faculty and school administrators were trained on the six co-teaching models and what they should expect during the co-teaching process. For the study, teacher efficacy was measured at the beginning, middle, and end of the semester using surveys from approximately 220 teachers teaching various grades from kindergarten through 12th grade. The TSES (a 12-question survey developed by Tschannen-Moran, 2001) was used to measure teacher efficacy. Teachers rated their level of efficacy in the co-taught classroom from 1 to 4 (1 = not at all, 2 = a little, 3 = somewhat, 4 = to a great extent). Based on the questionnaire, the results suggested that co-teaching does in fact enhance teacher self-efficacy. The co-teaching experience provides teachers with support, mentorship, and shared leadership responsibilities. In general, teachers found the co-teaching experience to be positive and their self-efficacy in teaching students with disabilities grew from their participation in co-teaching (Wilburne & Ozmen, 2017).

Lori Katz from Indiana State University studied the impact and the effects of a co-teaching environment on teacher self-efficacy in a midwestern state (Katz, 2018). A cross-sectional survey was used to collect data from 2,402 secondary general education

and special education teachers (from the study) regarding their efficacy by determining student engagement, instructional strategies, and classroom management throughout the process. General education teachers and special education teachers were partnered at various high schools (from the school district of study) to co-teach for the course of a semester. Upon the completion of the study, a 57-question survey was sent to all teachers involved to reflect upon their efficacy in the co-taught classroom. The survey was completed anonymously via email. The instrument used to collect data from the study was the TSES (a long-form question survey developed by Tschannen-Moran, 2001). At the conclusion of the survey, the data determined there was a major effect when teaching in a co-taught classroom for the general education teachers compared to a stand-alone classroom. Specifically, secondary general education teachers had high self-efficacy in engagement, instructional strategies, and classroom management within the co-taught classroom, while secondary special education teachers had a higher sense of efficacy, only in the student engagement category (while in the co-taught classroom). Special education teachers felt that they could assist their students to do well in school in either setting (Katz, 2018).

In another study, 256 rural high school teachers (212 general education teachers and 44 special education teachers) from Tennessee and Indiana measured their self-efficacy in engagement, instructional practices, and classroom management after teaching in a co-taught classroom (Colson et al., 2021). Some teachers reported that they had adequate professional development, and others did not feel prepared. Teachers used several co-teaching models throughout the process. Based on the Marilyn Friend co-teaching models, some of the teachers in the study used the one teach, one assist model

and others used the teaming model. A link to the 12-question TSES was sent to all participants after the completion of the study. The results showed major differences in the levels of self-efficacy between teachers with and without instructional practice experience in a co-taught classroom. When comparing teachers with experience in co-teaching, findings showed that they had a higher sense of self-efficacy in the areas of student engagement in comparison to the teachers with little to no experience. Teachers who have experience in co-teaching stated that they also felt more assertive in using various instructional practices and strategies (Colson et al., 2021).

Federal mandates ensure that students with disabilities are now part of general education classrooms. A Colorado rural school district study examined whether differences existed in teacher self-efficacy based on the collaboration between the two types of teachers (general education teachers and special education teachers; Daniels, 2018). The Teacher Efficacy for Inclusive Practice (TEIP) scale was also used in this study to measure teacher self-efficacy. The findings showed that special education teachers had a sense of high self-efficacy towards co-teaching as well as higher self-efficacy for collaboration than the general education teachers. This is because special education teachers are trained to teach students of all ability levels and have no problem collaborating with various teachers in order to meet the needs of their students. Findings also showed that the general education teachers felt less self-efficacious when it came to collaborating with other teachers to seek guidance on addressing the needs of students with disabilities. Based on these results, this is because teachers in the general education classrooms do not feel that they are qualified and prepared to teach students with disabilities (Daniels, 2018).

Teachers working in a co-taught classroom can measure their self-efficacy based on the TEIP scale. This scale is meant to score teacher self-efficacy in order to provide instruction in co-taught classrooms. The original study (using the TEIP scale) identified three key factors that are necessary to master when co-teaching: efficacy in using inclusive instruction, efficacy in collaboration, and efficacy in managing behaviors (Park et al., 2014). The TEIP scale consists of 18 items scored on a 6-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = disagree somewhat, 4 = agree somewhat, 5 = agree, and 6 = strongly agree; Park et al., 2014).

Summary

As schools, curricula, and students constantly grow and change, educators continue to determine the best ways to teach students with disabilities. As more students with disabilities now learn alongside general education students, teachers continue to discover how to include these students in their classrooms through the use of co-teaching.

This literature review focused on the theoretical framework concept of self-efficacy. Research has shown that self-efficacy is a crucial component of successful inclusion and co-teaching at any level (Wilburne & Ozmen, 2017). There is a strong need to build teacher self-efficacy as part of the co-teaching process. Multiple research data have shown there is an obvious difference in the levels of self-efficacy in regard to co-teaching and a feeling of inadequacy of general education teachers to effectively teach students with disabilities. Teachers can utilize the TIEP scale created by Tschannen-Moran (2001) to reveal their self-efficacy levels (Park et al., 2014).

The literature review continued with in-depth research that shows the need for

continuous co-teaching training and better collaboration between general education teachers and special education teachers in order to improve self-efficacy levels and enhance the co-teaching and inclusion experience for everyone involved (Bray-Clark & Bates, 2003). Friend's (2008) research also showed that co-teaching has a reputation for improving student outcomes for students with disabilities as well as without disabilities. Multiple studies were conducted focused on self-efficacy, inclusion, and co-teaching. These were used as the basis for the research.

The literature review found a gap in the research focusing specifically on the Marilyn Friend co-teaching models at the middle school level. In order to fill the gap in the research, a program evaluation was conducted focusing on both general education and special education teacher data from reading and math classrooms in three different middle schools and three different grade levels (sixth, seventh, eighth) in the district of study.

Chapter 3: Methodology

The purpose of this study was to assess the overall effectiveness of co-teaching using the Marilyn Friend models. The study examined the planning, procedures, and teacher perspectives (general education and special education) of co-teaching in Grades 6, 7, and 8 (math and reading), which was facilitated during the 2021-2022 school year. The qualitative evaluation captured the perceptions of district personnel, middle school principals, middle school special needs administrators (assistant principals), middle school special education teachers, and middle school general education teachers involved in the co-teaching process.

CIPP Program Evaluation

Program evaluation is necessary in education. Program evaluation guides the success of all educational initiatives. The major focus and purpose of evaluations are to inform stakeholders such as district personnel, principals, assistant principals, department chairs, teachers, and parents of specific decision-making purposes, programs, and organizational improvement, and to strengthen everyone's overall knowledge.

This dissertation research utilized Stufflebeam's CIPP program cycle (Social Science Space, 2017). Stufflebeam developed the CIPP model in the 1960s in regard to the need for additional support for decision makers (Social Science Space, 2017). Stufflebeam defined evaluation as the process of describing, obtaining, reporting, and applying descriptive and judgmental information about an "object's" worth in order to guide decision-making and to increase one's overall understanding (Fitzpatrick, 2021).

The CIPP evaluation model emphasizes learning by doing. This type of evaluation focuses on improving programs rather than simply proving if the program is effective or

not effective. When applied correctly, the CIPP model will provide formative and summative feedback. The formative and summative information is then used for improvements to the initiative. The CIPP evaluation process provides timely and relevant information from which to make informed decisions. It further provides a detailed framework to review components of a particular program (Fitzpatrick, 2021). The CIPP evaluation ultimately assists school districts with evaluating and improving specific projects.

A district or school can incorporate ongoing evaluation of educational programming using one or more phases of the CIPP evaluation. The evaluation includes four major concepts: context, input, process, and product. Each of these concepts guides stakeholders with plans, actions, and outcomes of a specific program.

This program evaluation used Stufflebeam's CIPP model (Social Science Space, 2017) as a tool for evaluating the Marilyn Friend co-teaching models for success and opportunities for growth. The research examined Stufflebeam's CIPP model (Social Science Space, 2017) as a program evaluation cycle, which emphasizes program improvement rather than program effectiveness. This study presents a CIPP evaluation to define necessary changes in co-teaching for years to come.

Context Phase

CIPP begins with the context phase, also known as the planning phase within the cycle. Context centers around a needs assessment, available resources, problems to be solved, any background issues, and the overall environment of the program (Fitzpatrick, 2021). The context phase focuses on the intended goals for a program. This phase sheds light on what needs to be addressed as well as accomplished.

The context phase can also assist in identifying a district's learning and community needs. The context evaluation intentionally assesses problems, assets, and opportunities (Stufflebeam & Shinkfield, 2007). Creating a needs assessment is a common example of the work that takes place at the beginning of the context evaluation (Warju, 2016). In education, the context phase includes the goals, objectives, intentions, history, and background of the school (Fitzpatrick, 2021). This is the area of the evaluation where a district is provided the big picture and begins to identify various possible program implementations while evaluating the fit of the programming.

Input Phase

The second phase of the CIPP assessment process is the input phase. This is where the problem is specifically defined and restructuring begins. The inputs are important resources that must meet the needs that were outlined in the context phase (Warju, 2016).

Input evaluation is used as a problem-solving strategy. Key stakeholders should be identified during this phase. Budget is a major component; therefore, this should be examined during the input phase. Others include research, plans, stakeholders, or subject matter experts. Scheduling is a major input in developing an evaluation using CIPP. Inputs create a plan with steps to be implemented as well as tools and/or resources required to achieve the program's overall goals (Fitzpatrick, 2021).

Process Phase

The third aspect of CIPP is the process phase. Process is related to program development and implementation. This is where the main implementation occurs. It is important to note that the process phase is revisited multiple times in order to review

specific data (Fitzpatrick, 2021). This is also a point where the execution of specific processes is examined for possible refinements within the program. One of the main components of this phase is looking at how well each process is serving the context and whether all parts are operating well together. Stufflebeam noted that this is where the program is fully developed and executed (Social Science Space, 2017). The process phase is especially valuable for providing information and encouraging relationships between all stakeholders and evaluators. “Additionally, this phase identifies participant success in specific roles and helps determine termination, continuation, or modification” (Stufflebeam & Shinkfield, 2007, p. 52). The formative evaluation for this step includes guidance for implementing the plan. The summative evaluation includes the money used, how it is utilized, plus a differentiation of the design and the confirmed work (Fitzpatrick, 2021).

In a school district, this phase is where consistent monitoring, documenting, and assessing takes place. Feedback is gathered, processed, and then communicated to the key stakeholders in order to provide data and ultimately buy-in. Stufflebeam also stated that this aspect of the CIPP evaluation will measure whether the intended strategies were implemented effectively and whether alterations are needed in order for the district to implement them effectively (Social Science Space, 2017).

Product Phase

The final aspect of the assessment cycle is the product evaluation. This is considered a review phase in the cycle where intended goals are assessed. The product focuses on the “bigger picture” related to program performance and goals. The question that seeks to be answered in this phase is, “Have the goals been met?” Fitzpatrick (2021)

stated that there are specific areas that should also be examined. These include if the program is sustainable in terms of context, inputs, and processes. Stakeholders should continue to examine how the program achieves outcomes and goals, as well as focus on specific trends that can be gathered from researching information and what areas of the program can and need to be improved.

To measure the effectiveness of the initiative, Stufflebeam referred to written logs, diaries of outcomes, interviews from various stakeholders, targeted focus groups, documents/records, and analyses that can and should be used for evaluation purposes (Social Science Space, 2017). The formative evaluation used within the product phase includes the direction for continuing or modifying the work after analyzing the data. The summative evaluation role is the comparison of the outcomes to the needs identified. It includes the data of results with each of the other steps in the CIPP process (Fitzpatrick, 2021).

Stufflebeam and Shinkfield (2007) noted that throughout each of the CIPP processes, it is critical to provide all stakeholders with specific feedback on the project. Communication is essential and requires meaningful and appropriate involvement throughout the entire evaluation cycle.

Research Questions

The purpose of the study was to evaluate the Marilyn Friend co-teaching program. The four phases of CIPP were used for the program evaluation. The study used each of the CIPP processes to evaluate the Marilyn Friend co-teaching models during the 2021-2022 academic year in the middle school setting. The implementation and effectiveness of the program were addressed with the following research questions.

1. Why is a co-teaching model needed?
2. How effective is the training for the Marilyn Friend model?
3. How are the Marilyn Friend models monitored and evaluated?
4. How effective are the Marilyn Friend co-teaching models?

Program Participants/Selection of Sample

The Marilyn Friend co-teaching models were selected for a program evaluation. The evaluation included three middle schools from the school district of study. The study included the special education director, three middle school principals, three middle school special needs administrators (assistant principals), 11 middle school special education teachers, and 22 middle school general education teachers. Each of the participants was sent an electronic survey (via district email) to complete regarding co-teaching. Additionally, the study included in-person interviews with the special education director and the three middle school principals along with in-person focus group interviews with the special education teachers and general education teachers at each of the middle schools of study.

The school district selected for the study was located in the foothills of the Blue Ridge Mountains in South Carolina. The district consists of nine elementary schools, three middle schools, three high schools, one career center, two alternative schools, and one adult education program. The district serves approximately 11,055 students with approximately 660 certified teachers. Of all the students, 1,803 are students with disabilities and have current IEPs. The school district has a strong focus on “Students First” and helping them to achieve their greatest potential.

Nature of the Study/Rationale

A qualitative approach was used for the program evaluation. A qualitative study is defined as research that involves collecting and analyzing non-numerical data. This includes understanding concepts, opinions, or experiences. Qualitative research attempts to explain the how and why of a particular subject. (McLeod, 2019).

Qualitative data were represented by an electronic survey sent via district email to the special education director, special education teachers, general education teachers, principals, and special needs administrators (assistant principals) at the middle school level. Data from the survey responses were coded through collective response for interpretation. Follow-up interview questions were developed based on the coding of the survey responses. Interviews involving willing participants from those categories of personnel allowed for additional data regarding perceptions of co-teaching.

Research Design

Prior to conducting any research, I sent an email to the superintendent and the assistant superintendent in order to receive permission on behalf of the school district to conduct the study. The purpose of the study and the dissertation was shared for further explanation. After approval was granted, the director of special education as well as three middle school principals and two assistant principals received a formal email with detailed information about the study as well as a copy of the survey for their review. After approval from each administrator, the electronic survey was sent (via district email) to all participants detailing the purpose. I sent the electronic Google survey (via district email) to middle school special education teachers and middle school general education teachers who were currently co-teaching.

The survey allowed for a thorough study of all stakeholder perceptions in regard to the Marilyn Friend co-teaching models/processes. I was very interested in learning the perceptions of the teachers, particularly the general education teachers. Surveys were sent out in early February 2022 with a 2-week turnaround. A reminder was sent out to all participants after 1 week.

I conducted informal (in-person) focus group interviews. Merriam-Webster (n.d.a) defines focus groups as a research technique used to collect data through a small group of people allowing them to provide input on what, why, and how questions. The responses from the focus groups determined what could be expected from a larger population.

An individual interview was conducted with the director of special education. Focus group interviews were conducted with the administrators from each of the three middle schools. Additional focus group interviews were conducted with the general education teachers and the special education teachers currently involved in co-teaching at the three middle schools of study. The purpose of the interviews was to expand on the perceptions of the Marilyn Friend co-teaching models and the overall process of co-teaching at the middle school level.

Instrumentation

Survey Tool

I used an adapted survey designed by M. Ferraro, a doctoral student in Maryland. The survey was originally used by Ferraro (2014) to determine ways to improve co-teaching at the high school level. Permission to use the survey was granted via the Quia website. The privacy policy on the website stated that all materials were free and

available for download and use by any user.

The adapted survey was reviewed by the superintendent, assistant superintendent, director of special services, and the three administrators of the middle schools in the district of study before it was applied to the program evaluation participants.

Ferraro (2014) designed and validated a survey that was composed of 24 items to establish valid data regarding co-teaching. Ferraro's survey was validated by the principal of the high school of study (who had strong expertise in co-teaching) as well as a district administrator. Ferraro originally used these specific survey items to determine which key individuals were involved in co-teaching, their opinions of co-teaching, and possible ways to improve co-teaching at the high school level. After revising the survey and omitting questions, some of Ferraro's survey questions were used that were specific for a program evaluation. The Marilyn Friend co-teaching model was added to Ferraro's questions in place of the term co-teaching. The final survey for the study consisted of 11 questions.

Interview Data

To conduct the CIPP evaluations, I collected qualitative data in the structure of interviews. Merriam-Webster (n.d.c) defines interviews as a structured conversation where one participant asks questions and the other provides answers. The purpose of an interview is to receive specific answers to specific questions. For the intention of the CIPP program evaluation, I interviewed the superintendent, director of special services, three middle school administrators, three middle school assistant principals, 22 general education teachers, and 11 special education teachers.

Data Collection and Analysis

Table 1 shows qualitative data that were used to answer the research questions, the participants involved, and how the data were analyzed. The qualitative data were collected using informal in-person focus group interviews. Qualitative data were also collected from the survey (regarding teacher perceptions of co-teaching) sent to the director of special education, principals, assistant principals, and general education and special education teachers involved in co-teaching.

Table 1

Alignment Table

CIPP evaluation	Research question	Tools/instruments	Method of analysis
Context	Why is a co-teaching model needed?	Interviews Teacher survey	Thematic analysis
Input	How effective is the training for the Marilyn Friend models?	Interviews Teacher survey	Thematic analysis
Process	How are the Marilyn Friend models monitored and evaluated?	Interviews Teacher survey	Thematic analysis
Product	How effective are the Marilyn Friend co-teaching models?	Interviews Teacher survey	Thematic analysis

Qualitative measures were used in order to evaluate the Marilyn Friend co-teaching models at the middle school level. Survey data were used to answer the research questions as well as drive the interviews. Interview response data were coded for common themes within the CIPP program evaluation.

Survey Items

Once the electronic survey was sent to all participants, I analyzed the survey data. The survey included a variety of questions. These included five short answer questions, one Likert scale question, and five multiple choice questions for a total of 11 survey questions (see Appendix). All questions required a response. The answers to each survey question were then displayed in an Excel document (transferred and formulated from the Google Survey). I organized the survey responses in order to identify common themes from each of the participant's responses. The survey questions and alignment to the research questions are included below.

1. **Context:** Why is a co-teaching model needed?

Q1: Are you a general education teacher?

Q2: Are you a special education teacher?

Q3: How many years have you co-taught?

2. **Input:** How effective is the training for the Marilyn Friend co-teaching models?

Q4: How effective is the training for the Marilyn Friend co-teaching model?

Q5: In response to the above question, what can be done to best meet your needs regarding the Marilyn Friend co-teaching training?

3. **Process:** How are the Marilyn Friend models monitored and evaluated?

Q6: What do you believe to be the greatest barriers to co-teaching at your school? Please check the top THREE barriers.

Q7: Which of the Marilyn Friend co-teaching models do you and your co-teacher use the most?

Q8: Based on your response to the above question, why do you use that particular Marilyn Friend co-teaching model most often?

Q9: How do you monitor the success of the Marilyn Friend co-teaching models in your classroom?

4. **Product:** How effective are the Marilyn Friend co-teaching models?

Q10: What is one benefit to the Marilyn Friend co-teaching models for your current students?

Q11: Other comments about Marilyn Friend strengths, areas of concern, or requests for information.

Interview Questions

Presented below is the list of questions that were prepared for the special education director, principals, assistant principals, general education teachers, and special education teacher focus group interviews. Responses to each of the interview questions were recorded by my computer and written by hand in order to better analyze the data to ensure that common themes were identified.

Context

1. What are the goals of co-teaching?
2. What is your perception and the schools of the need and purpose of co-teaching?
3. What is your role in the implementation of co-teaching?

Input

4. What training did you experience prior to and during the implementation of co-teaching?

Process

5. How does learning look in a co-taught classroom?
6. How is the program monitored? And feedback given?
7. What are some specific strategies that are implemented in a co-taught classroom?

Product

8. What are the areas for improvement?
9. Describe how co-teaching has impacted the academic achievement of students.

Summary

This chapter presented the overall purpose of the study, participants included, methodology, instrumentation, data collection, and analysis approach. I conducted a qualitative program evaluation of the implementation of the Marilyn Friend co-teaching models. I determined the success of co-teaching using Stufflebeam's CIPP model for evaluation (Social Science Space, 2017). Data were received through district administration, school administrators, teacher surveys, and interviews to determine specific themes, barriers, and successes of the program. The data collected evaluated the success of the Marilyn Friend co-teaching models. Results from the study provided the district of study with information to inform, improve, and sustain co-teaching.

Chapter 4: Results

Purpose

The purpose of the study was to evaluate the Marilyn Friend co-teaching program at the middle school level. The four phases of CIPP were used for the program evaluation. Participants in the study included middle school special education teachers, middle school general education teachers, middle school principals, middle school assistant principals, and the special education director. The implementation and effectiveness of the program were addressed with the following research questions:

1. Context: Why is a co-teaching model needed?
2. Input: How effective is the training for the Marilyn Friend models?
3. Process: How is the Marilyn Friend model monitored and evaluated?
4. Product: How effective are the Marilyn Friend co-teaching models?

The data and analysis from the surveys and interviews are provided. The co-teaching surveys provided information on the success of the implementation of the Marilyn Friend co-teaching models from the viewpoint of middle school general education teachers and middle school special education teachers. The interview data provided the perspectives of middle school general education teachers, middle school special education teachers, middle school administrators, and the special education director. A qualitative research approach supports an understanding of the implementation and the success of co-teaching at the middle school level. The chapter is divided into two sections: co-teaching survey and co-teaching interviews.

Co-Teaching Survey

The anonymous co-teaching survey was sent to all general education and special

education middle school teachers currently involved in co-teaching during the 2021-2022 school year. A time limit of 2 weeks was given to complete the survey (on the teachers' own time) with one reminder sent after 1 week.

The co-teaching survey was sent to a total of 31 middle school general education teachers and special education teachers currently co-teaching; 23 total responses were returned. Seventeen teachers listed themselves as a general education teacher, and six listed themselves as special education teachers. Fifty-two percent of teachers stated they had been teaching longer than 10 years. Thirty-nine percent of teachers stated they had been teaching between 5 and 10 years. Four percent of teachers had been teaching for less than 1 year, and another 4% listed themselves as teaching for between 2 and 4 years.

The survey consisted of 11 questions: four multiple choice questions, one Likert scale question, one check all that apply question, and five open-ended questions. The first three survey questions provided information regarding participant demographics. Research Question 1 was not answered through the teacher survey. Research Question 2 was informed by Survey Questions 4 and 5. Research Question 3 was informed by Survey Questions 6-9. Research Question 4 was informed by Survey Questions 10 and 11.

Research Question 2: How Effective Is the Training for the Marilyn Friend Co-Teaching Models?

Survey Question 4 asked teachers how effective is the training for the Marilyn Friend co-teaching models. Table 2 displays the Likert scale responses from the co-teaching survey.

Table 2*Survey Question That Pertains to Research Question 2*

Question	Not effective (1)	Somewhat effective (2)	Not sure (3)	Effective (4)	Very effective (5)	Total
How effective is the training from the Marilyn Friend co-teaching model?	21.7% (five participants)	4.3% (one participant)	17.4% (four participants)	30.4% (seven participants)	26.1% (six participants)	23

**Participants that stated the training was not effective did note that they had not received the co-teaching training*

The co-teaching survey data support that the Marilyn Friend co-teaching training is effective with a total of 13 participants (participants who answered 4 and 5 combined) in agreement. However, there are things that could be done to improve the training as five participants stated that the training was not effective, and another five participants were neutral.

Survey Question 5 was asked as a follow-up short answer question which allowed teachers to elaborate on their response to Survey Question 4. This question asked teachers what could be done to best meet their needs with the Marilyn Friend co-teaching training. I coded each of the responses in order to find common themes. The themes that emerged from this data were needs were met, the need for visuals and hands-on activities, the need for the initial Marilyn Friend training, and the need for ongoing training/professional development on a regular basis.

Several teachers stated that their needs were in fact met during the Marilyn Friend co-teaching training and they felt that no changes should be made. However, multiple teachers stated that they would like to see additional visuals being used as well as have a more hands-on approach training versus only a “sit and get” model. Teachers also felt

that the training was very long and not very effective because of this. The teachers felt this could be changed by allowing them to have work time with their co-teacher to practice the specific models and plan potential lessons.

Through the survey data and the short answer responses, I found that over half of the participants had not been a part of the initial Marilyn Friend training and therefore will need to be properly trained. Although not best practice, the teachers who had not had the official training did state that they had support at their individual schools in order to provide adequate training for teaching in a co-taught class.

Multiple participants expressed the need for additional and ongoing support in regard to co-teaching. Teachers explained that they received training several years ago and since then have not been a part of any training related to co-teaching. Therefore, teachers stated that they would like a refresher course each year to ensure they are completing co-teaching with fidelity as well as to receive support.

Research Question 3: How Are the Marilyn Friend Models Monitored and Evaluated?

Survey Question 6 asked teachers their greatest barriers to using the Marilyn Friend co-teaching models. Teachers were asked to choose their top three barriers. Table three displays the barriers listed by middle school teachers.

Table 3*Survey Question That Pertains to Research Question 3*

Question: What do you believe to be the greatest barriers to using the Marilyn Friend co-teaching models at your school? Please check the top THREE barriers.

Lack of training	52.2% (12 participants)
Personality clashes	8.7% (two participants)
Limited resources	30.4% (seven participants)
Scheduling issues	73.9% (17 participants)
Reluctance to lose control	8.7% (two participants)
Lack of time	69.6% (16 participants)
Lack of administrative support	8.7% (two participants)
Total	58

Co-teaching survey data support that the teachers feel there are numerous barriers when implementing the co-teaching model into their classrooms and this does have a negative effect on the fidelity of the implementation. Teachers rated their top three barriers when implementing co-teaching: scheduling issues, lack of time, and lack of initial training/continuous professional development.

Teachers stated that scheduling is their greatest barrier. The number of students who require co-teaching makes the class size larger or the population of the class consists mainly of students with IEPs because there may only be one co-taught class offered at that specific grade level. Teachers also discussed the issues with scheduling affecting their ability to plan properly with their co-teacher because one or both teachers may have a class when one teacher is free, and some teachers stated that they do not have access to a planning period at all.

The second greatest barrier to co-teaching is lack of time. Teachers stated that they feel rushed in their co-taught class because the special education teacher only has a certain amount of time to assist with the lesson. Therefore, they feel as if they are only “skimming the surface” of the content. Lack of time also consists of planning between the general education teacher and the special education teacher. No common planning time often requires both teachers to stay after school in order to work together or communicate via email, etc.

The third greatest barrier to co-teaching is over half of the various teachers who are currently a part of a co-taught class have never received the initial training by Marilyn Friend. The initial training is held in the summer each year (many teachers stated they were on vacation when the only training was offered). These teachers had a brief training at their school and then began co-teaching. Other teachers stated they would like to have ongoing training/professional development so they can ask specific questions and/or get feedback in order to improve their co-teaching.

Survey Question 7 asked teachers, “Which of the Marilyn Friend co-teaching models do you and your co-teacher use the most?” Table 4 displays the multiple-choice responses from the co-teaching survey.

Table 4*Survey Question That Pertains to Research Question 3*

Question: Which of the Marilyn Friend co-teaching models do you and your co-teacher use the most?

One teach, one assist	52.2% (12 participants)
Parallel teaching	8.7% (two participants)
Station teaching	13% (three participants)
Alternative teaching	0
Team teaching	17.4% (four participants)
One teach, one observe	8.7% (two participants)
Total	23

In response to the above question, data from the co-teaching survey support the use of a variety of Marilyn Friend co-taught methods being used across the three middle school settings. When looking at the data, it is obvious that teachers are most comfortable implementing the lowest level of co-teaching by simply having the general education teacher actually teach the lesson and the special education teacher only assisting as needed (based on the majority of the responses with the one teach, one assist model).

Survey Question 8 was asked as a follow-up question in regard to why teachers use a particular co-taught model more than others. I coded each of the responses to find common themes. The themes that emerged from this data were COVID-19 restrictions, teacher knowledge in a specific subject, small groupings, and one teach, one assist.

Based on teacher responses, a majority of teachers struggle with co-teaching due to the numerous COVID-19 restrictions in place (social distancing, teachers are not allowed to teach in a small group setting, shields must be in place, family model, etc.).

Due to these restrictions, teachers were unable to use any other model besides one teach, one assist or one teach, one observe. Teachers stated they know and understand that these two models are not most effective for all students and they feel something has to change in order for co-teaching to work effectively moving into the next school year.

Teachers also felt that teacher content knowledge is another major factor in a co-taught classroom. General education teachers stated their co-teacher (special education certified) does not have an ELA or math background. Therefore, the general education teacher does not feel it is appropriate for the special education teacher to take on a group of middle school students to teach a specific standard. This requires the general education teacher to find time to teach the special education teacher the specific content. Teachers also do not have a common planning period, so this makes it very difficult and creates additional work for each teacher.

Many teachers stated that they do feel that station teaching (small group) works best for their classes. This allows the general education teacher to teach a quick whole group lesson. The class then breaks into small groups based on ability level where the general education teacher has a group and the special education teacher has a group. Specific stations are used for students to work independently in order to get more personalized instruction for all students. Teachers feel that station teaching has been most effective for the students in the past and they hope to use this model more moving forward.

Another theme that was found was the one teach, one assist model. Although it is one of the lowest levels of co-teaching, many teachers had various reasons for choosing this model. One teacher stated, "The general education teacher wants to keep control of

the classroom and keep the class on schedule; therefore, I mainly assist with whatever she needs me to do.” Another teacher stated that due to the lack of uncommon planning on a daily or weekly basis, the one teach, one assist model works the best because co-teaching is in fact very time consuming and this model allows for instruction to continue with little to no planning on the forefront.

Survey Question 9 asked teachers how they monitor the success of the Marilyn Friend co-teaching models in their classrooms. The short answer responses are discussed below.

Teachers listed a variety of ways they currently do this. However, the common theme was based on data. Some general education teachers do this by simply monitoring student grades, classwork/homework completion, and behavior checklists. Special education teachers stated they monitor student progress in regard to IEP goals as well as classroom grades. Both general education and special education teachers stated they use data from formative and summative assessments as well as district assessment data to monitor growth and potential regression. One teacher stated, “The special education teacher and I monitor notes in our groups as well as discuss students' work. This ensures that we know if what we are doing is working.”

Research Question 4: How Effective Are the Marilyn Friend Co-Teaching Models?

Survey Question 10 asked teachers to list one benefit of the Marilyn Friend co-teaching models for their current students. The short answer responses are discussed below. Answers for the short answer question varied drastically; however, some common themes were coded. These included high expectations, small group instruction, and extra support/attention.

Many teachers stated they feel that co-teaching offers a level of high expectations for all students. Teachers feel that the high level of expectations sends a message to all students that they are capable of completing grade-level assignments. Another theme that emerged was the use of small group instruction. Teachers feel that small groups allow students to learn at their own pace and allow for more individualized instruction. The majority of teachers feel that co-teaching offers extra support and attention for all students. This was a critical factor for teachers as they feel that students need this more than anything.

Survey Question 11 asked teachers to list any other comments about the Marilyn Friend co-teaching model strengths, areas of concern, or requests for information. The short answer responses are discussed below.

It is important to note that the majority of the answers listed were, “none at this time.” A few comments stated that teachers really enjoy the co-teaching model and another stated that teachers really need to be on board with this program and not be told to participate. A teacher noted, “My co-teacher and I work very well together and we are meeting our students' needs through the use of co-teaching.” Another teacher stated, “It is not always easy to do parallel teaching and/or station teaching because not all special education teachers have the reading or math background for the curriculum.” Another teacher stated, “I am amazed at some aspects in the curriculum that students with IEPs understand and enjoy. In reading, they love novels. The students with IEPs love being inside of the general education classroom with their peers.”

Overall, the co-teaching survey revealed many positives to co-teaching at the middle school level. General education teachers and special education teachers are

mainly supportive of the initiative. However, there is additional work to be done in order to ensure students are most successful and teachers receive the support needed.

Co-Teaching Interviews

Interviews were facilitated with the middle school general education teachers and special education teachers currently involved in co-teaching (from the three middle schools in the district of study), principals and assistant principals (from each of the middle schools), and the district special education director. Each middle school interview was held separately for a total of three separate teacher interviews. Administrator interviews were also held separately, so teachers could speak freely about co-teaching without an administrator in the room. The interviewees were asked to respond to open-ended questions that were designed around the CIPP evaluation model.

Following is the list of interview questions. Responses to each of the questions were recorded by the computer or written by hand in order to better analyze the data and ensure that common themes were identified.

Context

1. What are the goals of co-teaching?
2. What is your perception and the school's perception of the need and purpose of co-teaching?
3. What is your role in the implementation of co-teaching?

Input

4. What training did you experience prior to and during the implementation of co-teaching?

Process

5. How does learning look in a co-taught classroom?
6. How is the program monitored? And feedback given?
7. What are some specific strategies that are implemented in a co-taught classroom?

Product

8. What are the areas for improvement?
9. Describe how co-teaching has impacted the academic achievement of students.

Interview With Middle School 1

I interviewed middle school teachers currently involved in co-teaching to further gain an understanding of their experience with the implementation. A total of five teachers participated in the interview (two special education teachers and three general education teachers) from Middle School 1.

Research Question 1: Why Is a Co-Teaching Model Needed?

Interview Question 1 asked teachers to discuss what the goals of co-teaching are. The responses from teachers at Middle School 1 are discussed based on common themes. Teachers responded with very similar answers to one another, showing that the vision of co-teaching is evident at their school. The most frequent answer was student success and more one-on-one student assistance. One teacher stated, “Co-teaching is a way for students with IEPs to be most successful while gaining a newfound confidence.” The teachers also felt that co-teaching is a way for students to have the type of success they may not have otherwise. Co-teaching offers support and a sense of security for some

students who lack confidence. Co-teaching is meant for all.

Interview Question 2 asked teachers, “What is your perception and the school’s perception of the need and purpose of co-teaching?” At Middle School 1, teachers stated that they feel the overall perception of co-teaching is accepted: “Teachers generally want the extra support in their classrooms.” The teachers feel that their administration team places a strong emphasis on the initiative. It is important to note that co-teaching (at Middle School 1) started in only one math class at one grade level. Now, there is at least one co-taught class in reading and math at sixth-, seventh-, and eighth-grade levels. “Students are constantly asking why am I not in that class so that I can get extra help” was a statement made by a co-teacher. Students are able to see the benefits. Each teacher stated they feel supported in co-teaching and they feel that support trickles down to the students being in favor of a co-taught model.

Interview Question 3 asked teachers, “What is your role in the implementation of co-teaching?” One teacher stated, “My role is simply to teach with another teacher. We both provide and monitor instruction for all students.” She feels like it is her job to teach the content alongside her teacher. The same teacher also stated that she and the co-teacher plan together (after school) so they both have an understanding of the lesson. Another teacher stated that in her classroom, the students work with both teachers and if one teacher explains a math problem in a way some students do not understand, the co-teacher will explain it in a different way: “Our role in the implementation is to teach and ensure that this model is effective for all students.”

Research Question 2: How Effective Is the Training for the Marilyn Friend Models?

Interview Question 4 asked teachers about the training they experienced prior to beginning co-teaching. It is important to note that four of the five teachers at Middle School 1 received the initial Marilyn Friend co-teaching training.

The teachers who did receive training stated they would like to see the training geared toward specific grade levels, as they felt middle school teachers needed something different than elementary or high school teachers. A teacher stated, “it was a rather large group at the training. I would feel more comfortable with a smaller group so that we as adults could have more support.”

Research Question 3: How Are the Marilyn Friend Models Monitored and Evaluated?

Interview Question 5 asked teachers how learning should look in a co-taught classroom. Teachers noted that everyone should be working together. Co-teaching is a time when everyone should be busy doing something. Small group instruction should take place. One teacher stated, “there should be no indication of who the general education teacher is and who is the special education teacher.” Another teacher stated, “Co-teaching is loud and messy.” Co-teaching allows the teachers to reach more students based on their academic levels. One teacher stated, “It is all about balance.”

Interview Question 6 asked the teachers to reflect on how they monitor the progress of co-teaching as well as monitor student progress in a co-taught class. It was noted that small groups are used the most in order to monitor progress effectively. Small groups allow the teachers to work with students in a more personalized way. One group of co-teachers stated that they take time to plan together, and this allows them to also monitor student progress. It is important to look at multiple pieces of data: “Student

grades are a major point of data,” stated a teacher. Another teacher stated, “It helps to continue the co-teaching partnership with the same teacher each year.” This partnership has allowed both teachers to easily monitor their progress because of the natural relationship that has developed.

Research Question 4: How Effective Are the Marilyn Friend Co-Teaching Models?

Interview Question 7 asked teachers to discuss the specific strategies they implement in a co-taught classroom. It was noted that due to scheduling, co-teaching unfortunately does end up as one teach, one assist, where the general education teacher teaches the content and the special education teacher assists as needed. One teacher did state, “I understand that this is not the most effective model, but due to lack of planning it is impossible to really co-teach in any other way.” Another stated that she and her co-teacher use the station teaching model the most because each teacher can teach a small group based on their academic levels. The teachers felt like they have not attempted many of the Marilyn Friend models; they tend to stick with what they know.

Interview Question 8 allowed teachers to discuss how co-teaching can be improved. Teachers stated their biggest challenge with co-teaching currently is scheduling/planning. Teachers would like to have a set time for common planning with their co-teacher so the special education teacher can take on more responsibility for teaching specific content. One teacher stated that she co-teaches in a reading class and a math class: “I feel that math lends itself to a co-taught approach; whereas in reading, it is more difficult to incorporate two teachers.” She also made note that it is important to find ways to better co-teach in a reading class by providing specific training focused on reading strategies: “This is another reason why teachers need common planning. We need

to work together.”

Interview Question 9 gave teachers the chance to reflect on their successes with co-teaching. Each co-teacher shared some sort of a success story that allowed them to see that co-teaching was working. All five teachers stated that the confidence levels have been a huge success factor with co-teaching at their middle school. A teacher stated, “Students are now trying things that before co-teaching they would have not tried.” One teacher noted the progress her students have made on district assessments: “Students’ reading and math scores have grown tremendously throughout the process of co-teaching.” Another teacher noted that report card grades, in general, have increased compared to the beginning of the school year because students are staying in their general education classrooms and are able to complete the assigned work with support from the special education teacher.

Interview With Middle School 2

I interviewed a second middle school with the same set of questions. This interview allowed me to get additional perspectives on co-teaching at another middle school within the school district of study. A total of three teachers participated in the interview (two special education teachers and one general education teacher).

Research Question 1: Why Is a Co-Teaching Model Needed?

Interview Question 1 asked, “What are the goals of co-teaching for Middle School 2?” These goals were simple. Teachers believe the goal of co-teaching is to include all students in the general education classroom. One teacher also stated that co-teaching is meant to raise expectations for students and gain a new level of confidence: “Co-teaching is meant to assist students that are close to grade level to receive instruction inside of the

general education classroom.”

Interview Question 2 asked teachers, “What is your perception and the school’s perception of the need and purpose of co-teaching?” Both the general education and the special education teachers stated that they felt co-teaching was needed and definitely saw the benefits. However, in regard to their entire middle school staff, their perceptions are not the same. It was noted that the vast majority of teachers at the school do not see the purpose of co-teaching and are not receptive to another teacher in the classroom.

Teachers believe it is only another initiative to check off the list. One special education teacher stated, “Once a teacher has a co-taught class for 1 year, the mindset is they do not want to do it again. They do not want to participate another year.” This in turn makes it very difficult to create solid co-teaching partnerships. “Moving forward it will be important that our administrators communicate the benefits of co-teaching so that this can be done the right way,” stated a teacher.

Interview Question 3 asked teachers about their role in the implementation of co-teaching. The one general education teacher who was present stated that she felt like her main role is to provide the main content instruction, and the special education teachers stated they feel like their role in co-teaching is to support the general education teacher while offering additional support to all students. The special education teachers stated they feel like they should support students in a small group. A special education teacher stated, “I feel like my role changes depending on which teacher I am co-teaching with.”

Research Question 2: How Effective Is the Training for the Marilyn Friend Models?

Interview Question 4 asked teachers, “What training did you experience prior to and during the implementation of co-teaching?” Each participant stated that they did

receive the initial Marilyn Friend co-teaching training. However, that training was several years ago, and they only remember it being in a large group with very little one-on-one support or work time. Each teacher in the interview expressed the need for additional training and support as they want to ensure that their implementation is correct.

Research Question 3: How Are the Marilyn Friend Models Monitored and Evaluated?

Interview Question 5 asked teachers, “What does learning look like in a co-taught class?” According to the general education teacher, “learning in a co-taught classroom should balance between both teachers teaching students on a higher level and teaching students on a lower level.” However, right now, the general education teacher feels as if she spends the majority of her time with the students performing on a lower level because the students are not at the point where they are independent enough to complete the assigned tasks without support. According to another teacher, “Learning should look like students being taught in various groups on various academic levels so that students are able to get what they need to be most successful.”

Interview Question 6 asked teachers how they monitor the progress of co-teaching in their co-taught classes. With the one teach, one assist model being used the most, both teachers monitor progress mainly through student grades, observations, and notes. This allows them to see if students are understanding the content. The grades also determine if the special education teacher should pull a small group of students who may be struggling with a particular concept.

Research Question 4: How Effective Are the Marilyn Friend Co-Teaching Models?

Interview Question 7 asked teachers, “What specific strategies are implemented in a co-taught classroom?” A variety of the Marilyn Friend co-teaching models are used at

Middle School 2. This is not always for the best. The group felt as if they cannot get into a good routine because they are never with the same co-teacher year after year; therefore, the model that is used is always different. All teachers in the interview did mention that they prefer to use the station teaching model where students rotate around the room through various stations and visit a teacher table twice (the general education teacher table and the special education teacher table). The two special education teachers feel that they get “stuck” with only using the one teach, one assist model, which they believe is not most appropriate for students, especially those who are struggling with the content.

Interview Question 8 asked teachers to discuss the improvements that are needed to make co-teaching better. The group as a whole was very vocal in regard to what needs to be improved. Teachers here stated that they felt additional support/training is needed as well as consistency and common planning to make co-teaching work. The general education teacher stated, “I would like to have the same co-teacher year after year so that we can perfect co-teaching.” At the middle school level, teaching core content is difficult; therefore, having a common planning period would be very beneficial so the special education teacher could “learn” the content and be confident in their teaching.

Interview Question 9 asked teachers to reflect on how co-teaching has impacted the academic success of students. Despite the numerous challenges, the teachers were able to share their successes through co-teaching. One teacher stated that her test scores increased drastically. Another teacher stated that her success is within the English class: “Students feel much more confident in the area of reading, and this has not always been the case.” The general education teacher shared a story of a student who has grown leaps and bounds because of co-teaching. The special education teachers also shared that

because of co-teaching, several students have been able to move out of resource support classes and into a co-taught class. This allows them not only to stay in their classroom for the entire period, but it shows their growth academically and meeting their IEP goals.

Interview With Middle School 3

A third middle school was interviewed with the same questions. The third interview allowed me to get another middle school's perception of co-teaching. A total of 11 teachers participated in the interview (three special education teachers and eight general education teachers).

Research Question 1: Why Is a Co-Teaching Model Needed?

Interview Question 1 asked teachers what are the goals of co-teaching? The goals of co-teaching at the third middle school were defined as a way to support all students in a more inclusive environment as well as a way to prepare students to become more independent. Teachers also felt that the goal of co-teaching is to assist students with transitioning from a pull-out special education model to a more inclusive model (which in middle school is what the students prefer). "Co-teaching is a great way for students to gain more independence with a gradual release model, which is crucial at the middle school level," stated a teacher.

Interview Question 2 asked teachers, "What is your perception and the school's perception of the need and purpose of co-teaching?" Overall, teachers at the third middle school believe that co-teaching is accepted and wanted by all. They feel that their administration team does a great job of presenting it to faculty so everyone will be on board. However, the teachers do feel that all subject areas should be included in a co-taught class. One teacher stated,

Our science and social studies teachers are jealous that they do not have another teacher and an extra set of hands in their classroom with them as the students in their classes are the same students in the reading and math co-taught classes.

All teachers at the middle school would like the opportunity to have access to a co-taught class.

Interview Question 3 asked teachers about their role in the implementation of co-teaching. The middle school general education teachers felt that their role in the implementation of co-teaching is to teach the main content of each lesson. One of the special education teachers stated that she does spend a lot of time assisting one-on-one and providing specific accommodations. It was noted that the majority of the special education teachers do not have a background specifically in the areas of reading and math; therefore, it is difficult for them to be responsible for teaching subject-specific content. One of the special education teachers stated, “I feel it is my role to support the general education teacher with all aspects of the classroom.” Each teacher did feel that it is their responsibility to support all students in the general education classroom. All teachers also agreed that it is important for students to realize there are two teachers in the room (it should not be obvious that one teacher is a general education teacher while the other is a special education teacher).

Research Question 2: How Effective Is the Training for the Marilyn Friend Models?

Interview Question 4 asked teachers, “What training did you experience prior to and during the implementation of co-teaching?” Half of the interviewees stated they received the initial Marilyn Friend co-teaching training, and the other half have never received the training but are currently co-teaching. The teachers who had been a part of

the training program stated that although it was several years back, they were pleased with the information they received. However, they did express the concerns of so many people in one training session and the little time for one-on-one support. All the teachers expressed the desire for additional training.

Research Question 3: How Are the Marilyn Friend Models Monitored and Evaluated?

Interview Question 5 asked what learning should look like in a co-taught classroom? One general education teacher responded, “You should see lots of students’ light bulbs going off to the point where you can see that confidence coming out like never before.” Students can also be seen working independently or in small groups because they are now at a point in their learning where they can handle that level of instruction. Another teacher stated,

My classroom looks like three classrooms in one because you can see the various levels of differentiation being taught for all students. It can get messy, but everyone is learning at their own pace and doing their own thing, and at the end of the day that is what it is all about.

Interview Question 6 asked, “How is the program monitored and how is feedback given?” Teachers at Middle School 3 monitor co-teaching mainly through observations, grades, daily notes, and student IEPs. One of the general education teachers stated, “My co-teacher and I talk daily after the co-taught class about the groups we worked with and where we are going next.” This allows the teachers to plan and monitor their instruction on a daily basis. It was noted that the special education teachers have a lot of “say so” with this because of assessing and referring to student IEP goal progress.

Research Question 4: How Effective Are the Marilyn Friend Co-Teaching Models?

Interview Question 7 asked teachers about the specific strategies that are implemented in a co-taught classroom. It was noted that the Marilyn Friend model one teach, one assist is currently used the most due to the COVID-19 restrictions in place. This is where the general education teacher spends the majority of the class period teaching the lesson and the special education teacher assists with repeating directions or simply assisting students and the teacher. However, the middle school teachers do feel that station teaching is on the rise now. Teachers do feel that the station teaching model is most effective. This allows both teachers in the room to see every student in order to better monitor their academic progress. A general education teacher stated, “Before COVID-19 my entire co-teaching experience has been with station teaching, and going back to that model will make a huge difference. Station teaching allows for growth and support.”

Interview Question 8 asked teachers about specific improvements that could be implemented in regard to co-teaching. The teachers stated that currently, their classroom numbers are much larger than normal because it is a co-taught class. One teacher stated, “I feel that we need more of a balance of students in the co-taught classroom. Currently, I have a total of 29 students in one of my classes and 12 of those students have an IEP.” The teachers currently feel as if they are teaching in a self-contained classroom because of the various needs and the levels of support needed. Teachers feel they are leaving their students at or above grade level behind. They do not feel like they can assist every student. Several teachers discussed the need for having time to work with their co-teacher to test out each of the Marilyn Friend models to get a better understanding of the model

and if they both felt it would work well. Another co-teacher stated that it would be beneficial to have examples of each of the Marilyn Friend models being taught in middle school classrooms for the teachers to review.

Interview Question 9 asked teachers to describe how co-teaching has impacted the academic achievement of students. “This is the first time that I was able to read my test independently” was a statement made by one of the general education teachers as she explained a story of a student with an IEP who had struggled for so long and was finally about to complete a task independently in a co-taught class. The general education teachers feel that co-teaching has increased the levels of confidence in all students which in turn has an effect on their achievement. The teachers also felt that co-teaching has allowed them to build better relationships with their students.

Interview With Middle School Administrators

Middle school administrators from each of the three middle schools in the district of study were interviewed in order to gain an understanding of the co-teaching perspective from a middle school administrator standpoint. There was a total of five administrators in the interview (three principals and two assistant principals). The administrators were asked the same nine questions as the teachers, which did allow for further clarification of some of the teacher responses. I again took each question and found common themes to each answer.

Research Question 1: Why Is a Co-Teaching Model Needed?

Interview Question 1 asked administrators, “What are the goals of co-teaching?” Each administrator had a very similar answer, and it was obvious that they each had a clear understanding of the goals and purpose of co-teaching. They stated that co-teaching

offers another level of support for students with IEPs. This model serves students in the general education classroom without students missing core content. One administrator stated that co-teaching “is a stepping stone and students' ticket from being dismissed from special education services.”

Interview Question 2 asked, “What is your perception and the school’s perception of the need and purpose of co-teaching?” There were various responses, as each middle school is currently in a different place with the implementation of co-teaching. The administrator at Middle School 1 stated,

Overall, I feel that the teachers here are in favor of the model and appreciate the additional support. Having an extra teacher in the classroom to help is huge. Our teachers understand that the special education teacher is there to help. The relationship between the two teachers is very important and I feel it is important to note that we have gotten push back from co-teaching in that sense.

The administrators at Middle School 2 and Middle School 3 did have similarities in regard to their responses. Each administrator stated that they do feel as if their teachers are on board with co-teaching. However, each school does have a different type of pushback. The administrator at Middle School 2 stated that they need to focus on ensuring that the right general education teachers are on board. The administrator at Middle School 3 stated that they have been working to implement co-teaching with fidelity and because of this work, they feel their teachers are receptive to the concept. Middle School 3 focused on implementing co-teaching in one grade level at a time (this included all reading and math classes at that grade level) before moving to another grade level. The administrators feel that their school needs continuous professional

development in co-teaching in order to keep the momentum going.

Interview Question 3 asked administrators about their role in the implementation of co-teaching? “Being the person to make it all happen” was the common theme in regard to an administrator’s role in co-teaching. Each middle school administrator felt that their role was to support co-teaching and to present it in a positive way to their faculty. If co-teaching is not being done correctly, it is up to the administrators to implement a quick plan of action to ensure things go well. As an administrator, it is important to ensure that the master schedule allows for co-teaching. “If you want things to happen then you have to set things up for success,” stated an administrator. The administrators stated that they each take the time to schedule each student individually (with an IEP) to ensure their schedule works with a co-taught class. The administrators also stated the importance of an open line of communication throughout the co-teaching process: “I want teachers to come talk and we will solve the problems together. Guiding and answering questions is a big part of my role.” Overall, each administrator felt that if teachers see their administration team as an advocate for co-teaching, this sets the tone. “We have to show teachers and students that we are on their side. Co-teaching is a learning process, but we will do whatever we can to make the co-taught classes successful,” stated an administrator.

Research Question 2: How Effective Is the Training for the Marilyn Friend Co-Teaching Models?

Interview Question 4 asked the administrators about the training they experienced prior to and during the implementation of co-teaching? It was noted that only two of the assistant principals have been a part of the Marilyn Friend co-teaching training. Not one

principal had been a part of the co-teaching training, but each did express the desire to be a part of this to ensure they are leading their staff in the right direction.

Research Question 3: How are the Marilyn Friend Models Monitored and Evaluated?

Interview Question 5 asked administrators, “What does learning look like in a co-taught classroom?” It was noted that administrators are in and out of all classrooms on a daily basis completing various observations. Therefore, when asked what learning should look like in a co-taught classroom, each administrator was quick to answer with the same few words: active teaching from both teachers. The administrator at Middle School 1 stated, “I am looking to see both teachers actively involved with students. Small group instruction is a must for me.” Both teachers have an important role. The general education teacher and the special education teacher should serve ALL students (regardless if the student has an IEP). The administrator at Middle School 3 stated, “I should not know which teacher is the general education teacher and which is the special education teacher. It should be a true partnership.” Each administrator knew what they were looking for in a co-taught class, which in turn creates a successful co-taught classroom.

Interview Question 6 asked, “How is the co-teaching program monitored? And feedback given?” It was noted that the three middle schools across the district monitor co-teaching in the same ways. “This is where truly knowing your students and their ability assists with the implementation of co-teaching,” stated an administrator. During grade-level planning meetings, the administrators look at various data points based on student performance. One administrator noted that she sits in on each of the students’ IEP meetings and this helps her to know what is working and what is not. It is important to

note that any decision made in regard to co-teaching is based on multiple pieces of data. The administrators stated that co-teaching is monitored by student grades in the co-taught class, teacher observations/notes, iReady reading and math (district-wide reading and math instructional online program) performance data, and student IEPs.

Research Question 4: How Effective Are the Marilyn Friend Co-Teaching Models?

Interview Question 7 asked, “What are some specific strategies that are implemented in a co-taught classroom?” Of the six Marilyn Friend co-teaching models, each middle school administrator only sees two of the models: one teach, one assist and station teaching. One administrator elaborated by saying, “The one teach, one assist model is typically used at the beginning of the lesson and then the teachers move to a more hands-on co-taught model.” This is where the special education teacher helps the general education teacher with explaining the overview of the lesson and possibly assists and gives instruction for the remainder of the class. Station teaching is the model used after the whole group lesson. This model allows for both teachers to teach students in a small group. Here, students rotate around the room to complete work on their level. Each of the middle school administrators felt that station teaching was the most effective because of the individualized instruction.

Interview Question 8 asked, “What are areas for improvements?” In regard to improving co-teaching, each administrator had different things they felt would improve the overall effectiveness of co-teaching, but they had one overall improvement in common and that was scheduling. “Scheduling is very hard at the middle school level with so many different classes,” stated an administrator. One administrator pointed out one thing related to math co-teaching and one thing related to reading co-teaching that

should be improved. In math co-teaching, teachers seem to have more experience with co-teaching, but special education teachers still need to learn the content. Co-teaching in reading classes is much more difficult. Therefore, it is important to support both teachers by providing more professional development sessions and examples for teachers to follow.

Another administrator stated,

Co-planning is an area that needs improvement. Our schedule has not allowed that to happen yet. Therefore, I want to work on getting coverage for teachers that need it. I want the general education teacher and the special education teacher to have time to work together and write lesson plans.

Another administrator felt that in his building, the main improvements are doing a better job of getting the right teachers partnered up and proper training:

We have several bad fits this year which in turn causes co-teaching to not benefit anyone. Training is something that we also need. Right now, we have several teachers that have not received any training and some that have not had training in several years.

A third administrator stated that he feels training would be a great improvement: “I feel like we need to offer the training just before school starts so that the general education teacher can attend the training with their special education teacher. This is something that we need every year.”

Interview Question 9 asked the administrators to describe how co-teaching has impacted the academic achievement of students. Each administrator was able to share various success stories, but the common theme went back to growth academically for

students with IEPs as well as confidence. “Failure rates here are really low,” stated an administrator. District iReady testing data have shown a lot of growth for many students. One administrator stated that the general education students have really helped students with IEPs: “They want to see them succeed.” The administrators feel that overall, co-teaching has a way of holding students more accountable and forces students to work harder. Another administrator stated, “Co-teaching has given our middle school teachers the freedom to try different things. It has also pushed our teachers to teach more in small groups, and they realize it is not just for elementary.”

Interview With the Special Education Director

A final interview was conducted with the special education director in order to gain an understanding of why a co-teaching model was selected for the district as well as to understand her perception of co-teaching at the middle school level from a district standpoint. The director was also asked the same nine questions as the middle school teachers and administrators.

Research Question 1: Why Is a Co-Teaching Model Needed?

Interview Question 1 asked the director, “What are the goals of co-teaching?” She stated that she brought co-teaching to the district in the summer of 2017 as a way to increase access to general education for all students (this includes students with IEPs). Co-teaching is a way to support students in their general classroom environment. “The more access students have to their assigned grade-level curriculum, the higher the performance,” stated the director. Co-teaching is a way to expand the continuum of services.

Interview Question 2 asked, “What is the overall perception and the need and

purpose of co-teaching throughout the district?” The director felt that as a district, the perception of co-teaching is wanted, but work is still needed to understand what implementation with fidelity should look like: “I think that overall, everyone understands that this model benefits all students and creates inclusive environments.” It is important to note that there are “pockets” of educators who do require additional training to better understand the true purpose of co-teaching.

Interview Question 3 asked the director about her role in the implementation of co-teaching? She explained that her role changes depending on the specific need of teachers participating in co-teaching. However, her first job is to assist everyone throughout the district with their understanding of co-teaching. The director stated, “This is something that you do by first getting the district leadership team on board and showing the benefits of co-teaching.” Once that has happened, it is important to meet with all principals and explain co-teaching to them. “I also have the job of presenting co-teaching to teachers,” stated the director. The director noted that in order to get buy-in, she had several teachers model co-teaching, which allowed it to spread. The director also has the responsibility to ensure that everyone is trained: “As a district, we are now to the point where I am mainly inspecting what I expect.” It is important that the director is hands-on; she tries to visit each co-taught classroom throughout the school year to monitor as well as give feedback.

Research Question 2: How Effective Is the Training for the Marilyn Friend Co-Teaching Models?

Interview Question 4 asked the director about the training she experienced prior to and during the implementation of co-teaching? The director stated that prior to the district

implementation of co-teaching, she researched co-teaching and then worked one-on-one with Marilyn Friend. She also sat in on numerous trainings that Marilyn Friend was conducting for other school districts across the country. The director has gone through the same Marilyn Friend training that all teachers are required to take prior to their co-teaching implementation. It was noted that the director also completes the training again each summer with newly trained staff.

Research Question 3: How Are the Marilyn Friend Models Monitored and Evaluated?

Interview Question 5 asked the director, “What does learning look like in a co-taught classroom?” The director had a very similar answer to that of the administrators. She stated, “When I go into a co-taught classroom, I should not be able to tell who the Special Education teacher is. I want to see everyone engaged.” It is important that both teachers are working to provide instruction in various ways. The director noted that the chosen Marilyn Friend model should be obvious. However, the one teach, one assist model should be used sparingly. It is important that good teaching is taking place in the co-taught classroom.

Interview Question 6 asked, “How is the co-teaching program monitored? And feedback given?” The director noted that co-teaching is monitored at each individual school, and she reviews their data: “Administrators should be in the classrooms completing observations in order to monitor the co-teaching program at their school.” It is important that teachers look at multiple pieces of individual student data in order to inspect the progress and make changes when necessary.

Research Question 4: How Effective Are the Marilyn Friend Co-Teaching Models?

Interview Question 7 asked, “What are some specific strategies that are

implemented in a co-taught classroom?” The director noted that there should be various strategies being used in a co-taught classroom with an extra set of hands: “We should be getting more bang for our buck during this time.” There should be a great amount of station teaching, small group instruction, and one-on-one support taking place. Teachers should utilize the majority of the Marilyn Friend models. The special education teacher should be able to give specific academic support and guide students to achieve their goals. “This is not time for the SPED teacher to help with clerical tasks. This is prime instruction,” stated the director.

Interview Question 8 asked, “What are areas for improvements?” The director stated, “There are always ways to improve. COVID-19 definitely threw us a curveball. We are essentially starting over with co-teaching which is a huge challenge.” The director noted that it will be more important than ever to work to build capacity as co-teaching is not going anywhere: “It is a part of our culture.” Specific ways the district can improve is focusing on more collaboration between the special education teachers and the general education teachers as well as providing co-teaching when necessary.

Interview Question 9 asked the director to describe how co-teaching has impacted the academic achievement of students. The director was able to share multiple success stories and pieces of data. Students across the district are now being exposed to grade-level curriculum, some of whom have never had this type of exposure before. South Carolina state test scores have grown (in the subgroup category) in the areas of reading and math. Compared to test scores from last school year in Grades 3-8, both the district and state levels show an overall increase of students with disabilities meeting or exceeding expectations. The number of students who are considered to be in their least

restrictive environment (the general education classroom) 80% or more of the day has increased in total. It was also noted that the total number of students with IEPs graduating with high school diplomas has increased dramatically (since the implementation of co-teaching). “There truly is no bad data with co-teaching. We are fortunate to have so many success stories within the district,” stated the director.

Summary

Qualitative measures were used to evaluate the Marilyn Friend co-teaching program through a co-teaching survey and interviews with middle school general education and special education teachers as well as middle school administrators and the director of special services. After analyzing the data from the survey and interviews, the following common perspectives were determined:

- Teachers, building-level administrators, and the director of special services understood the goals of co-teaching. Co-teaching is designed for all students to get high-quality instruction from two certified teachers in one core subject classroom. Co-teaching allows for more access to support for all students. Co-teaching is meant for all.
- The overall perception of co-teaching is accepted throughout the district because of a shared vision. Co-teaching is wanted at all middle schools and viewed as a way to support all students.
- The role of implementation for every person involved in the co-teaching process is different. However, the ultimate role of each person is to lead and provide co-teaching services (as teachers, administrators, and the director of special services) as well as monitor student progress to make the best-

informed educational decisions.

- The majority of the participants did complete the Marilyn Friend initial training. Although the training was found to be effective, there is a strong need for additional co-teaching training/support for all teachers and administrators based on specific topics. These topics include strategies in a co-taught reading class, modeling and time to practice each Marilyn Friend model, ways to schedule, and ways to provide common planning.
- Learning in a co-taught classroom should look like two teachers teaching with lots of high energy. The general education and the special education teachers should not be able to be identified. All participants noted that there should be constant engagement through small group instruction/station teaching where both teachers are able to see all students based on their individual levels.
- The Marilyn Friend co-teaching models are monitored in a variety of ways. These include student grades, teacher observations, district and state testing data, IEP goals, parent/student input, etc.
- Specific strategies that are used in the co-taught classroom most often are station teaching as well as one teach, one assist. Additional strategies include modeling, chunking, collaboration, small groups, and individualized learning.
- Teachers, principals, and the director of special services believe that the co-teaching program needs improvement in regard to the initial training offered, professional development/coaching throughout implementation, scheduling, and co-planning to make the program most effective.
- Academic achievement for students in a co-taught class was noted by all

participants. Through the use of co-teaching, students have gained confidence and independence, improved grades/test scores, met various goals, and been dismissed from special education programs.

Chapter 5: Discussion

Overview

Co-teaching is on the rise in schools, as many school districts across the United States are implementing a co-teaching model at all grade levels. Friend et al. (2015) defined co-teaching as two certified teachers (a general education and a special education teacher) who have their own background areas of knowledge and they bring this knowledge together in order to teach students in the same classroom on various levels.

Co-teaching promotes the inclusion of students with disabilities into general education classrooms with their same-age peers to be exposed to grade-level curriculum in the least restrictive environment. It is important to highlight that co-teaching is the most popular model that assists students with disabilities (Cooke & McDuffie-Landrum, 2020). It is based on co-planning, co-instructing, co-assessing, and co-managing the same classroom in order to provide quality instruction for all students.

This study sought to evaluate the implementation of the Marilyn Friend co-teaching program using Stufflebeam's CIPP program evaluation model (Social Science Space, 2017). The CIPP program evaluation assessment model was designated for use in this study because of its ability to provide a comprehensive evaluation of the implementation and sustainability of a program. Perceptions from district administration, middle school general education teachers, middle school special education teachers, middle school principals, and middle school assistant principals were captured using personal interviews and a co-teaching survey for teachers currently involved in co-teaching. The data collected were provided to the district of study to assist with informed decisions as well as the direction and implications for the future of the Marilyn Friend co-

teaching program at the middle school level.

Restatement of the Problem

With co-teaching on the rise as well as the number of students being identified with disabilities, it is necessary for school districts to evaluate and identify the best strategies for successful development and implementation.

Currently, there is a lack of effective co-teaching between general education teachers and special education teachers at the middle school level, creating a gap in the delivery of co-teaching instruction across the district of study. Although teachers involved in the co-teaching process have been trained in the Marilyn Friend co-teaching models and the processes, there is a lack of know-how and preparedness for general education teachers and special education teachers. “This is a cause for concern, mainly because teacher preparedness is identified as one of the essential factors required for the success of co-teaching” (Chitiyo & Brenda, 2018, p. 41). The lack of preparedness in turn shows a low sense of self-efficacy and creates a major problem within the delivery of co-teaching.

The purpose of the study was to evaluate the implementation of co-teaching at the middle school level using the CIPP model evaluation to inform the school district of study effective strategies they can apply to ensure the success of the co-teaching program. After the COVID-19 pandemic, middle schools reintroduced co-teaching during the 2021-2022 school year. I sought to analyze the perceptions of co-teaching from district personnel, middle school principals/assistant principals, middle school general education teachers, and middle school special education teachers as well as the overall effectiveness of the co-teaching program. The study used a qualitative approach using a co-teaching

survey for middle school teachers. I also used interview data from middle school administrators, middle school general education teachers, and special education teachers.

Summary of Findings

Chapter 4 provided data analysis that responds to the research questions aligned to the CIPP program evaluation. Using qualitative co-teaching interviews with district administration, middle school principals/assistant principals, middle school general education teachers, and middle school special education teachers, I was able to examine personal perceptions of the implementation of co-teaching. Additionally, I used a co-teaching teacher survey (completed only by middle school general education and special education teachers currently involved in co-teaching) to analyze their perspectives as well as specific information pertaining to co-teaching. Common themes and data gained from the interviews and survey were summarized in Chapter 4.

Context Evaluation

The context evaluation is known as the planning phase within the cycle. Here, the needs and goals of the organization are put into place, and the ability to meet those goals is identified. The context evaluation intentionally assesses problems, assets, and opportunities (Stufflebeam & Shinkfield, 2007). A co-teaching survey and personal interviews were used to measure the context and answered Research Question 1, “Why is a co-teaching model needed?”

According to the middle school general education and special education teacher interviews, as well as administrator interviews, co-teaching is needed to support students with disabilities who are typically very close to performing on grade level. These students may only need additional support from a special education teacher within the general

education classroom. At the middle school level, it is more difficult to pull students out of their general education classroom to receive additional academic support because of the amount of general education work that is missed during that time. All interviewees discussed the importance of students with IEPs being exposed to grade-level curriculum in order to receive a high school diploma. Further, both teachers and administration teams highlighted the acceptance and appreciation of various students' needs through the co-teaching experience.

With regard to why a co-teaching model is needed, two of three middle schools felt their staff understands the needs and purpose of co-teaching. Middle school general education teachers generally want additional support from a special education teacher in their classroom. This extra support allows the general education teacher to break the class into small groups based on academic levels. These small groups create a way to provide more personalized instruction. Middle school special education teachers feel that co-teaching allows students with disabilities more time in general education and the chance at a “normal” middle school experience. One middle school expressed the desire for additional co-taught classes in all grade levels so they could target more students.

The middle school that did not feel as if a co-teaching model was truly needed was due to the teachers' overall perceptions of co-teaching. It was noted that co-teaching is seen more as a burden with lots of additional work. Teachers felt that the benefits were not expressed to them and that this was just another “box to check off of the to-do list.” Teachers also felt that they were not prepared and did not feel that they had the adequate knowledge to teach in a co-taught class, showing a strong lack of efficacy.

Literature supports that co-teaching is a well-known service delivery option that is

needed for providing services to students with disabilities inside of a general education classroom with general education students. Colson et al. (2021) wrote that many schools across the country have implemented co-teaching as a way to meet the needs of diverse learners in the general education classroom.

McManis's (2017) research has shown that both students with and without disabilities truly learn more by being in the general education classroom. Research has shown over the past few years that students with disabilities and without disabilities have great academic gains in all subject areas based on standardized testing growth.

Teachers play a major role in student achievement. As schools, curricula, and students constantly grow and change, educators continue to determine the best ways to teach students with disabilities. As more students with disabilities now learn alongside general education students, teachers continue to discover how to include these students in their classrooms through the use of co-teaching and the implementation of the various co-teaching models.

Input Evaluation

The input evaluation is the second phase of the CIPP assessment. Input measures the success of strategies necessary for achieving the identified needs and goals of an organization. The problem is specifically defined, and restructuring begins. The inputs are important resources that must meet the needs that were outlined in the context phase (Warju, 2016). The input evaluation was assessed through a co-teaching teacher survey and interviews with teachers and administrators at three middle schools. Research Question 2 was answered, "How effective is the training for the Marilyn Friend models?"

Through multiple interviews with teachers and administrators, there is a strong

need for additional training focusing on the Marilyn Friend co-teaching models. Middle school teachers highlighted that the initial training was in fact effective; however, 2 days of training was not enough. Teachers felt that first and foremost the overall training size should be condensed to a smaller size by levels. There should be elementary school training, middle school training, and high school training instead of all levels in one conference room. Teachers also feel that it is necessary to have a “refresher” training each school year. This training would allow teachers to ask specific questions regarding co-teaching and possibly practice some of the Marilyn Friend models before the implementation with students.

Additionally, principals stated that they had never been trained in co-teaching (only the assistant principals). Principals felt the training was necessary so they could ensure the success of the co-teaching initiative within their buildings. One middle school principal stated, “It is difficult to expect something [in regard to co-teaching] from teachers in my building that I personally do not know a lot about myself.”

School districts across the United States are now under great pressure to design in-service training that allows teachers to build their self-efficacy in regard to new initiatives before their full implementation. Teacher efficacy is known as “a teacher’s belief in their ability to assist in students’ learning” (Protheroe, 2008, p. 42).

Teachers can build their self-efficacy by observing other teachers and implementing strategies they see that work as well as getting feedback from other teachers (Protheroe, 2008).

Teacher preparedness and high self-efficacy in co-teaching may be seen in numerous ways such as “confidence in using co-teaching, an understanding of the job

responsibilities involved, knowledge of the different co-teaching formats, and knowledge of when and how to implement the different co-teaching formats” (Chitiyo & Brinda, 2018, p. 41). Sometimes, one teacher’s teaching style can support certain students, but the second teacher’s teaching style can support other students who may require further support.

A Georgia study showed that 12 teachers at four different middle schools rated with a low sense of self-efficacy and how that affected their overall management in their classrooms. The data showed several common themes between building relationships, being flexible, conveying expectations, and making a difference. Most of the middle school teachers were confident when describing their self-efficacy levels based on each of the four themes. However, some teachers stated they were planning on leaving the profession (at the end of the school year) due to an overall low sense of self-efficacy that affected their overall classroom performance. Current and former middle school teachers agreed that by having a level of confidence in their classroom, they were able to focus on the success of all students. These teachers were able to focus more on being personable, understanding, positive, and more willing to listen to their students (McCain, 2017).

Multiple studies have shown that teachers with a high self-efficacy in relation to their teaching ability and content produce greater student achievement in a variety of subject areas. For example, Bray-Clark and Bates (2003) found that students in a high school computer class with a teacher who had high self-efficacy (based on a survey at the beginning of the school year) for computer instruction performed better academically on the end-of-course assessment. This was in comparison to students in another computer class being taught the same content by a teacher who rated themselves with a low sense

of self-efficacy (Bray-Clark & Bates, 2003).

It is no secret that in-service training has the ability to enhance teacher effectiveness in the classroom. Ongoing in-service training for teachers aids in building teacher self-efficacy. High levels of self-efficacy can increase the willingness of teachers to learn and transfer skills during in-service training, especially in regard to new initiatives. Research from Gist (1986) showed that teachers with high levels of efficacy tend to perform better during in-service training opportunities. Therefore, it is crucial that teacher training is designed to improve the overall teacher knowledge that will in turn enhance student outcomes.

Like all new initiatives, it is important to ensure that the staff involved have the proper training. Access to professional development centered around co-teaching practices is important in education. This is particularly important for general education teachers who are teaching students with disabilities. “The common theme found across the literature was a need for teacher training for individuals involved in co-teaching” (Rexroat-Frazier & Chamberlain, 2018, p. 174). Professional development should be provided to specific groups for specific purposes related to co-teaching. All teachers involved in co-teaching should attend some type of co-teaching training together.

A study in the northeastern part of the United States showed the importance of co-teaching training. The results from the study showed the need for teacher preparedness before beginning the co-teaching process. The questionnaire given to middle school teachers revealed that not all teachers were trained; consequently, they required additional support throughout the duration of co-teaching. Teachers stated that they were unable to effectively implement co-teaching and felt that their scores did not show any

improvements due to the lack of training (Chitiyo & Brinda, 2018).

“There is a definite need for teachers to be supported in implementing an inclusive classroom” (McManis, 2017, p. 3). Teachers must feel that they are knowledgeable and confident to teach students with disabilities. This happens through proper training, practice, and modeling.

Process Evaluation

The process evaluation provides the measurement of the effectiveness of the actual program and identifies whether the strategies and resources are achieving desired results. The process phase is related to the program development and the implementation. One of the main components of this phase is looking at how well each process is serving the context and whether all parts are operating well together. Stufflebeam noted that this is where the program is fully developed and executed (Social Science Space, 2017). The process phase is especially valuable for providing information and encouraging relationships between all stakeholders and evaluators. The formative evaluation for this step includes guidance for implementing the plan. The summative evaluation includes the money used, how it is utilized, a differentiation of the design, and the confirmed work (Fitzpatrick, 2021).

I facilitated interviews with district administration, middle school administrators, middle school general education teachers, and special education teachers. A co-teaching survey for current middle school co-teachers also allowed me to analyze the process evaluation and answer Research Question 3, “How is the Marilyn Friend model monitored and evaluated?”

Data from the co-teaching survey revealed that teachers monitor the success of

co-teaching in a variety of ways to ensure continuous success of co-teaching. However, the common theme was based on data that included monitoring student grades, classwork/homework completion, monitoring behavior checklists, and progress towards IEP goals.

In regard to district interviews, teachers and administrators indicated the Marilyn Friend co-teaching program is ultimately monitored and evaluated by student data because their performance drives the overall success of the program. However, there are multiple factors that contribute to monitoring and evaluating the program. These include small group teaching, student grades in the co-taught class, teacher observations/notes, iReady reading and math (district-wide computer program) performance data, and student IEPs.

The special education director noted that co-teaching is monitored at each individual school, and she reviews their data: “Administrators should be in the classrooms completing observations in order to monitor the co-teaching program at their school.” It is important that teachers look at multiple pieces of individual student data in order to inspect the progress and make changes when necessary.

Recommendations for the best practices and monitoring in co-teaching are widespread throughout the research. According to Friend (2008), there are five main components for co-teaching to be the most successful: teacher preparation, participating (by choice), planning, scheduling, and principal/district support. Some best practices for schools incorporating inclusion are to simply focus on all students learning together; give teachers frequent assistance and support; focus on all students’ abilities, not their disabilities; honor the needs of all students; and most importantly, celebrate the unique

diversity (Lathan, 2019).

Successful monitoring and implementation of co-teaching can be seen in numerous studies across the nation. Think Inclusive (1970) studied and reported on the progress of students with disabilities in general education classrooms over the course of a 2-year time span. Data revealed that 47% of students with disabilities who were included in the general education classroom made significant progress in the area of math. This was in comparison to the 34% in self-contained classes. The study also found that typical general education peers made higher gains in math when students with disabilities were in the general education classroom. Based on multiple other observations, Lathan (2019) found that the extra help and additional support in these classes created positive gains for all students in the class, regardless of ability level.

A 2020 New Jersey research study focused on monitoring the effectiveness of six co-teaching models (based on Marilyn Friend) and how those can affect the behaviors/ classroom disruptions of second-grade students in a co-taught classroom. Over an 8-week period, 10 students with disabilities were selected to participate in the study. Research was obtained through the use of observation notes, journals, and student behavior charts. The data revealed that the one teach, one assist model and the team teaching model were the least effective, as these models reported the most classroom disruptions. However, the remainder of the co-teaching models had fewer classroom disruptions, and more content was covered throughout the duration of the lessons. The co-teaching models with fewer classroom disruptions are station teaching, alternative teaching, parallel teaching, and one teach, one observe (Maxwell, 2020).

Product Evaluation

The final aspect of the CIPP assessment cycle is the product evaluation. The product evaluation assists in determining the overall effectiveness of a program. This is considered a review phase where the intended goals are assessed. The product phase focuses on the “bigger picture” related to the program's performance and goals. The question that seeks to be answered in this phase is, “Have the goals been met?” Fitzpatrick (2021) stated that there are areas that should also be examined. These include if the program is sustainable in terms of context, inputs, and processes. This part of the program evaluation answered Research Question 4, “How effective are the Marilyn Friend co-teaching models?” I used the co-teaching teacher survey as well as focus-group interviews to define the effectiveness of the Marilyn Friend co-teaching program.

Teachers currently involved in co-teaching listed on the co-teaching survey that co-teaching is very effective for all students, as it offers a level of high expectations. Teachers feel that the high level of expectations sends a message to all students that they are capable of completing grade-level assignments. Teachers feel that the “push” for small groups throughout co-teaching allows students to learn at their own pace and allows for more individualized instruction. Small groups also allow for more one-on-one learning. The majority of teachers feel that co-teaching offers extra support and attention for all students, which makes co-teaching very effective.

Effective co-teaching was noted at each of the three middle schools of study. Middle school teachers and administrators were able to share numerous success stories of student progress because of the effective implementation of co-teaching in sixth, seventh and eighth grades. Each administrator was able to share various success stories, but the

common theme went back to growth academically for students with IEPs as well as a boost in their levels of confidence.

“Students are now trying things that before co-teaching they would have not tried,” stated a middle school general education teacher. Another teacher noted that report card grades, in general, have increased compared to the beginning of the school year because students are staying in their general education classrooms and are able to complete the assigned work with support from the special education teacher. This also affects the number of missing assignments students are now able to complete. A special education teacher shared that because of co-teaching, several students have been able to move out of special education altogether and no longer have an IEP.

“This is the first time that I was able to read my test independently,” stated one of the general education teachers as she explained a story of a student with an IEP who had struggled for so long and was finally able to complete a task independently in a co-taught class. The general education teachers indicated that co-teaching has increased the levels of confidence in all students which in turn has an effect on their overall academic achievement. Both general education and special education teachers asserted that co-teaching has allowed them to build better relationships with all students. For special education teachers, co-teaching has allowed them to become involved with general education students. For general education teachers, co-teaching has allowed them to see that students with IEPs are able to be included in the general education classroom.

The program evaluation supports that the one teach, one assist co-teaching model can be very helpful for a new set of co-teachers at the beginning of the school year. This model allows teachers to ease into co-teaching. Friend (2008) suggested that this is the

most used of all co-teaching models. However, her same research stated that this is the least effective co-teaching approach because it fosters dependent behaviors and in turn, these may distract students from the lesson (Friend, 2008).

Station teaching should be used frequently no matter the subject area. Data support this because additional small group time with students leads to more personalized instruction for all and fluid student groupings. This model does require three student groups at all times. Two stations are led by both teachers in the room, and the third group is an independent student group (Friend, 2008). It is important to note that all general education teachers in each interview did mention that they prefer to use the station teaching model over any of the other Marilyn Friend models because they believe students are able to get more of what they need on their level.

Based on the co-teacher survey and interviews with teachers, it is important to note that a variety of the Marilyn Friend co-teaching models are used within the district of study. However, this is not always for the best. Overall, teachers felt as if they cannot get into a good routine because they are not with the same co-teacher year after year. Therefore, the model that is used to teach may be different because of trying something new with a different co-teacher.

Implications for Practice

Analyzing research regarding a successful co-teaching program at the middle school level, including the results from interviews and a teacher survey, brought about common themes centered around the overall implementation and sustainability of the program.

Recommendation 1: Implementation

Research indicates that successful implementation of a new learning program occurs over the initial 2 to 3 years following the adoption of an educational initiative (Fullan, 2015). Effective training, curriculum and materials, and teaching practices, along with sound knowledge of reading and math instruction are each necessary for the successful implementation of the Marilyn Friend co-teaching models.

Over time, it is important to recognize that an implementation dip may occur due to the need for ongoing strengthening of knowledge and capacity (this is where the district of study is currently with co-teaching). During an implementation dip, it is important to take things slow and then revisit the beginning stages. Fullan (2015) recommended clarifying the goals of co-teaching and defining the quality of the program structure. This information should be shared with the teachers involved in co-teaching and then with the school. Allowing the entire staff to be involved in some way allows for continued support throughout the implementation.

It is crucial to take a step back and reinvolve all stakeholders (Fullan, 2015). For the district of study, this will include district administration, middle school building-level administration, middle school general education teachers, middle school special education teachers, and parents. Involving stakeholders allows everyone involved to have a voice on co-teaching.

When revisiting the implementation phase, Fullan (2015) recommended including government mandates, school district policies, curriculum, and state standards. It is imperative that the school district and the specific middle school provide consistent transparency and communication throughout the implementation phase. Throughout the

implementation phase of co-teaching, the middle school teachers spoke of using modeling, visual aids, small groups, collaboration, and individualized learning as strategies used in a co-taught classroom. One teacher stated, “These were some of the strategies we learned from Marilyn Friend during the initial training and when implemented correctly co-teaching works.” Each of these strategies should continue moving forward as the implementation phase is complete.

The district of study should continue to use explicit instruction that focuses on step-by-step practice and modeling. The district should also ensure that teachers involved in co-teaching are provided with problem-solving and learning opportunities. This collaborative environment will promote social interactions where the general education teacher and the special education teacher can work together. District administration and school-level administration should ensure that all teachers are adjusting the instruction based on student assessment data.

The middle school teachers currently involved in co-teaching spoke of the strong need for intentional work with their co-teacher through a weekly common planning time. During the interview process, at least one teacher from the three middle schools of study indicated there was no common planning time between the general education teachers and the special education teachers. One teacher stated, “The lack of common planning made my partnership with my co-teacher and providing the best instruction for all students very difficult. We felt like we only skimmed the surface of the content.” In the upcoming year, there should be an emphasis placed on common planning between the general education teacher and special education teacher. During the interviews with teachers, one general education teacher stated, “We as teachers want at least one planning

period per week.” The teacher continued by explaining that this set time would allow teachers to work together, share ideas, plan for best strategies, and practice.

School administration teams should coordinate and facilitate weekly teacher learning teams (grade-level teams) to ensure regular, ongoing conversations that center around data, interventions, and instruction for student and teacher growth. Moving forward, the team of co-teachers should explore what tools, strategies, and resources are most effective for all students. Ultimately, this collaborative engagement will support teachers to have a greater understanding of student data and can develop more effective lesson plans. Fullan (2015) wrote that teachers should work as a team to transform teaching into a true learning profession.

Teacher quality is essential for the success of co-teaching and student learning. The district of study must continue to plan and provide professional development that fits the needs of individual teachers. In the past, the district provided training by Marilyn Friend herself to ensure teacher knowledge and mastery in a co-taught classroom. This training proved to be invaluable as an essential learning tool for the beginning co-teacher. Moving forward, the district must continue to provide training with Marilyn Friend as well as additional training tailored to specific grade levels and/or content areas throughout the implementation process in order to strengthen capacity and provide the feedback necessary for monitoring, reflection, and growth.

The district of study saw a need for increasing the opportunity for continuous professional learning and coaching by visiting other co-taught classrooms within the district of study as well as outside of the district. To ensure improvement of the co-teaching program, the district must use individual teacher data to inform the necessary

areas of learning and improvements. Training should include best practices for scheduling, necessary assessment tools, and self-reflection. The district should also employ veteran co-teachers as trainers to support teacher capacity. Ongoing and intensive professional development is key to strengthening the teacher's knowledge of effective strategies and resources to support student learning and ultimately the sustainability of the co-teaching program (Ramírez et al., 2018).

Recommendation 2: Continuation

Continuation refers to the decision to continue an innovation based on perceptions, reactions to the change, and whether it is embedded in the organization. For the success of this phase, the organization must be committed to the established procedures and change. The change must be integrated into the school setting and include skilled staff who believe in the innovation. Student improvement in learning, followed by teacher attitude and capability, is imperative for the continuation of an innovation (Fullan, 2015).

Moving forward, it is important to ensure that all administrators are properly trained in the Marilyn Friend co-teaching models. This training will ensure that principals and assistant principals are providing specific feedback that is aligned with the research practices of the Marilyn Friend co-teaching models.

Middle school teachers, middle school principals, and district administration noted that moving forward, there is a strong need for a complete program evaluation of the Marilyn Friend co-teaching models in order to see their overall effectiveness. The district discussed using professional development opportunities and co-taught observations to inform the next steps. During the interviews with teachers, additional

support and on-going professional development opportunities quickly became a recurring theme. These additional trainings could be done during the school level TLT process (including the special education teachers in grade-level meetings with their co-teacher) as well as through the use of ongoing coaching. One teacher stated, “I would love to visit other co-taught classrooms across the district. This would help me to visualize how other teachers are implementing co-teaching into their classes and content.” This continual feedback and communication between all are vital to sustaining the co-teaching program at the middle school level. The continual feedback will identify specific opportunities for improvement and monitor the progress of the co-teaching program. Interventions are crucial to improving and sustaining an initiative. Fullan (2015) wrote that a school district will learn much from the change process. Fullan also noted that planning and improvement are derived and developed as the program continues. Patience is key.

Finally, the district and teachers noted the continued improvement in student assessment as necessary for the guidance of progress and informing curriculum decisions. In the upcoming year, the district noted plans to provide professional learning in a co-taught classroom centered around general education reading and math. These ongoing tools will provide accountability and gauge progress to inform next steps for student growth. The district must define the means for teaching, evaluating, and scheduling to drive the best instructional practices that are aligned with the curriculum and standards.

There is a time and place for each of the Marilyn Friend models because data support that each of them is effective in its own way. However, it is imperative that teachers know when and how to use each model based on the lesson being taught and the skill levels of their students. Choosing the right co-teaching model results in students

with disabilities learning grade-level curriculum as well as strategies to succeed outside of the classroom, which is a true sign of effective Marilyn Friend co-teaching.

Recommendations for Further Research

This qualitative study intended to evaluate the Marilyn Friend co-teaching models using Stufflebeam's CIPP model (Social Science Space, 2017) and to identify key strategies for implementation. The study included the perceptions of the director of special education, middle school principals/assistant principals, middle school general education teachers, and middle school special education teachers. As the data were analyzed, opportunities for further research were identified.

One area for further research is the evaluation of the Marilyn Friend co-teaching models at other grade spans including elementary and high school levels. This study could compare teacher perceptions and student data at those levels in order to determine the overall effectiveness of the program. These perceptions could then be compared to the middle school data of this study.

The researcher could also analyze the learning outcomes based on reading and math assessments and the perceptions of teachers in those content areas to better inform effective teaching practices and strategies for student achievement. This potential study would allow the researcher to compare co-teaching in reading classes as well as math classes and which strategies were proven to be most effective.

Another area for research is to include student perspectives in order to evaluate the effectiveness of the co-teaching program to inform opportunities for improvement. This would allow students to have a voice in this initiative. Further, the researcher could include an analysis of the students with IEP assessment data with support from the co-

teaching program.

Research and data from co-teaching could be compared with other local school districts (that are similar in size and nature). This study would allow the researcher to see the effectiveness of the co-teaching program from other schools as well as use additional initiatives/interventions as necessary.

Finally, in the school district of study, only two of the six Marilyn Friend co-teaching models were used on a regular basis (one teach, one assist and station teaching). In future research, it is necessary to complete a more thorough study focusing on the regular use of each of the Marilyn Friend co-teaching models.

Limitations and Delimitations

Due to the location and lack of knowledge about other local school districts, this study was limited to one rural school district. The study included one director of special education, three middle school principals, two assistant principals, 12 middle school general education teachers, and seven middle school special education teachers. Data gathered from the co-teaching teacher survey and interviews were used to evaluate the findings within the program evaluation.

An additional limitation is the presence of bias. During the time of my study, I was the district-wide special education instructional coach. As the researcher, I have some type of knowledge of the majority of the teachers as well as the administrators within the study. Due to my relationship with many teachers and administrators, certain information may have been affected. The interviews require accepting various points of view, ideas, and impressions. Since I do work within the district of study, it was noted that some participants might have stated what they thought I wanted to hear during the interview instead of basing their information on data and facts. When reviewing the data,

I had to consider how the responses were structured. I had to consider emotions, tone, and nonverbal communication.

Another limitation is the fact that the district of study is continuing to recover from the COVID-19 pandemic. Before COVID, co-teaching was being implemented with fidelity, and great progress was being made for the targeted students. COVID impacted the structure of classroom delivery for the better part of 2 years. With the absence of co-teaching for an extended period of time, the majority of middle school teachers are learning the steps of co-teaching over again. Professional development continues to be needed.

The delimitations in this evaluation were determined by the choices I made as the researcher in order to gain a better understanding of how to implement a successful co-teaching program. To gain a better understanding, I chose to use the CIPP program evaluation. This provided me with data in regard to the context, input, process, and product.

In the beginning, the choice was made not to compare other co-teaching implementations from similar middle schools as well as school districts in the surrounding area. The focus of this study was only on one rural school district in South Carolina. I chose to focus on one specific program in order to get solid data to use in planning and preparing for other school years.

During the interview process, I chose to meet with all teachers and administrators (who were a part of the study) via an online platform instead of a face-to-face interview. This decision was made as multiple teachers expressed concerns related to COVID-19.

For the study, I also chose to limit the sample size to only middle school general

education teachers and special education teachers who were currently co-teaching during the 2021-2022 school year. I wanted to gather data from teachers who were currently in the process of co-teaching, instead of opening the study up to any teacher who had ever co-taught. This choice ultimately affected the overall results.

Summary

The research study utilized a qualitative approach to evaluate the implementation of the Marilyn Friend co-teaching models at the middle school level to inform the effectiveness of the program for students with IEPs. I used Stufflebeam's CIPP model of program evaluation (Social Science Space, 2017). The Marilyn Friend co-teaching initiative is used at three middle schools in a rural South Carolina school district.

The implementation of co-teaching at the middle school level was effective, according to the director of special education, middle school administration teams, middle school general education teachers, and middle school special education teachers. Participants noted that some of the co-teaching models were used more than others, but all were still found effective in some way. All participants acknowledged student growth toward completing grade-level work in the areas of reading and math with mastery as well as growth with their interpersonal skills and meeting IEP goals.

The teachers and administrators praised co-teaching for student confidence in speaking in front of a larger group and becoming involved with students they may not always come into contact with on a regular basis. Teachers also noted their enjoyment in learning and interacting with the same teacher each day. Overall, they believed the co-teaching experience was beneficial to their students' academic and social needs at the middle school level. Further, the director of special services emphasized that

collaboration and communication between general education teachers and special education teachers were key strategies to ensure successful teaching for all students.

With regard to implications for future improvement, the district should continue to strengthen communication, monitoring, and feedback along with ongoing professional learning. The district should also focus on exposing teachers to each of the Marilyn Friend co-teaching models in order to meet the needs of various personalities and learning styles. Overall, the Marilyn Friend co-teaching models were successful in meeting the goals of facilitating students with disabilities being included in the general education classroom as well as being exposed to grade-level curriculum.

References

- A History of Improvement and Inclusion in Special Education. (2010, March 21).
BrightHub Education. <https://www.brighthubeducation.com/special-ed-inclusion-strategies/66803-brief-legal-history-of-inclusion-in-special-education/>
- Bandura, A. (1994). Self-efficacy defined.
<https://www.uky.edu/~eushe2/Bandura/BanEncy.html>
- Blanton, L. P., Pugach, M. C., & Florian, L. (2011, April). *Preparing general education teachers to improve outcomes for students with disabilities - NCLD*. American Association of Colleges for Teacher Education. https://www.nclد.org/wp-content/uploads/2014/11/aacte_nclد_recommendation.pdf
- Bray-Clark, N., & Bates, R. (2003). Self-efficacy beliefs and teacher effectiveness: Implications for professional development. *Professional Educator*, 26(1), 13-22.
- Brendle, J., Lock, R., & Piazza, K. (2017). A study of co-teaching identifying effective implementation strategies. *International Journal of Special Education*, 32(3), 538–550.
- Carty, A., & Farrell, A. M. (2018). An evaluation of models of co-teaching from the perspective of the teachers. *Support for Learning*, 33(2), 101–121.
<https://doi.org/10.1111/1467-9604.12198>
- Cherry, K. (2020, July 22). *Self efficacy and why believing in yourself matters*. Verywell Mind. <https://www.verywellmind.com/what-is-self-efficacy-2795954>
- Chitiyo, J., & Brinda, W. (2018). Teacher preparedness in the use of co-teaching in inclusive classrooms. *NASEN*. <https://doi.org/10.1111/1467-9604.12190>

- Colson, T., Xiang, Y., & Smothers, M. (2021). How professional development in co-teaching impacts self-efficacy among rural high school teachers. *The Rural Educator*, 42(1), 20–31. <https://doi.org/10.35608/ruraled.v42i1.897>
- Cook, S., & McDuffie-Landrum, K. (2020). Integrating effective practices into co-teaching: Increasing outcomes for students with disabilities. *Intervention in School and Clinic*, 55, 221–229. <https://doi.org/10.1177/1053451219855739>
- Cosier, M., Causton-Theoharis, J., & Theoharis, G. (2013). Does access matter? Time in general education and achievement for students with disabilities. *Remedial and Special Education*, 34(6), 323–332. <https://doi.org/10.1177/0741932513485448>
- Daniels, V. L. (2018). *A comparative study of k12 general education and special education teachers' self-efficacy levels towards inclusion of students with special needs* (Publication No.10751790) [Doctoral dissertation, Northcentral University]. ProQuest.
- Davis, J. (2018). *A study of k-12 teachers' perceptions of teacher self-efficacy in relation to instruction of 21st century skills* (Publication No.18020891) [Doctoral dissertation, Neumann University]. ProQuest.
- Family Connection of South Carolina. (2021, March 14). IEP and 504 plans. Changing lives by making connections, raising awareness, and promoting inclusion for those with disabilities and special healthcare needs. <https://www.familyconnectionsc.org/education/iep-504-plans/#:~:text=The%20acronym%20IEP%20stands%20for,learning%20goals%20for%20your%20child>

- Faraclas, K. (2018). A professional development training model for improving co-teaching performance. *International Journal of Special Education*, 33(3), 524–540.
- Ferraro, M. (2014). *Co-teaching survey*. <https://www.quia.com/sv/524200.html>
- Fitzpatrick, J. L. (2021). *Program evaluation: Alternative approaches and practical guidelines* (4th ed.). Prentice Hall.
- Francois, J. (2020). Teaching beliefs and their relationship to professional development in special education teachers. *Educational Considerations*, 55(3).
<https://doi.org/10.4148/0146-9282.2195>
- Friend, M. (2008). Co-Teaching: A simple solution that isn't simple after all. *Journal of Curriculum and Instruction*, 2(2). <https://doi.org/10.3776/joci.2008.v2n2p9-19>
- Friend, M. P. (2019). *Co-teach! Building and sustaining effective classroom partnerships in inclusive schools*. Marilyn Friend, Inc.
- Friend, M., Embury, D., & Clarke, L. (2015). Co-Teaching versus apprentice teaching: An analysis of similarities and differences. *Teacher Education and Special Education*, 38, 70–87. <https://doi.org/10.1177/0888406414529308>
- Fullan, M. (2015). *The new meaning of educational change* (5th ed.). Teachers College Press.
- Gist, M. E. (1986). The effects of self-efficacy training on training task performance. *Academy of Management Proceedings*, 1986(1), 250–254.
<https://doi.org/10.5465/ambpp.1986.4980706>

- Hang, Q., & Rabren, K. (2009). An examination of co-teaching: Perspectives and efficacy indicators. *Remedial and Special Education, 30*(5), 259–268.
<https://doi.org/10.1177/0741932508321018>
- Hanover Research. (2012, March). *The effectiveness of the co-teaching model*.
<https://www.ousd.org/cms/lib/CA01001176/Centricity/Shared/The%20Effectiveness%20of%20the%20Co-Teaching%20Model-Inclusion%20Material>
 § 1400-1415 (2004).
- Johnson, T., & King-Sears, M. (2020). Eliciting students' perspectives about their co-teaching experiences. *Intervention in School and Clinic, 56*, 51–55.
<https://doi.org/10.1177/1053451220910732>
- Jung, L. A., Frey, N., Fisher, D., & Kroener, J. (2019). *Your students my students our students: Rethinking equitable and inclusive classrooms*. ASCD.
- Katz, L. (2018). *The impact of co-teaching on teacher efficacy* (Publication No.10790096) [Doctoral dissertation, Indiana State University]. ProQuest.
- Krammer, M., Gastager, A., Lisa, P., Gasteiger-Klicpera, B., & Rossmann, P. (2017). Collective self-efficacy expectations in co-teaching teams: What are the influencing factors? *Educational Studies, 44*(1), 99–114.
<https://doi.org/10.1080/03055698.2017.1347489>
- Lathan, J. (2019, December 19). *The complete list of teaching methods*. University of San Diego Online Degrees. <https://onlinedegrees.sandiego.edu/complete-list-teaching-methods/>

- Lee, A. (2014). *What is no child left behind (NCLB)?* Understood.
<https://www.understood.org/en/articles/no-child-left-behind-nclb-what-you-need-to-know>
- Lopez-Garrido, G. (2020, August 9). *Self-efficacy theory*. Simply Psychology.
<https://www.simplypsychology.org/self-efficacy.html>
- Maxwell, E. (2020). *The effects of co-teaching strategies on student behavior in an inclusive setting* (Publication No.28024739) [Doctoral dissertation, William Patterson University]. ProQuest.
- McCain, P. (2017). *Teacher perceptions of the impact of self-efficacy on classroom management style: A case study* (Publication No.10621265) [Doctoral dissertation, Liberty University]. ProQuest.
- McLeod, S. (2019, July 30). *What's the difference between qualitative and quantitative research?* Simply Psychology. <https://www.simplypsychology.org/qualitative-quantitative.html>
- McManis, L. D. (2017). Inclusive education: What it means, proven strategies, and a case study. <https://resilienteducator.com/classroom-resources/inclusive-education/>
- McSweeney, J. (2019). *Teacher perceptions of professional development practices and their influence on self-efficacy: An action research study* (Publication No.65580881) [Doctoral dissertation, William and Mary University]. ProQuest.
- Merriam-Webster. (n.d.a). Focus group. In *Merriam-Webster.com dictionary*. Retrieved June 24, 2022, from <https://www.merriam-webster.com/dictionary/focus%20group>

- Merriam-Webster. (n.d.b). Inclusion. In *Merriam-Webster.com dictionary*. Retrieved June 24, 2022, from <https://www.merriam-webster.com/dictionary/inclusion>
- Merriam-Webster. (n.d.c). Interview. In *Merriam-Webster.com dictionary*. Retrieved June 24, 2022, from <https://www.merriam-webster.com/dictionary/interview>
- Murawski, W. W. (2010). *Collaborative teaching in elementary schools: Making the co-teaching marriage work!* SAGE Publications.
- Murawski, W., & Bernhardt, P. (2016). An administrator's guide to co-teaching. *Co-Teaching: Making It Work*, 73(4), 30–34.
- Park, M.-H., Dimitrov, D. M., Das, A., & Gichuru, M. (2014). The teacher efficacy for inclusive practices (TEIP) scale: Dimensionality and factor structure. *Journal of Research in Special Educational Needs*, 16(1), 2–12.
<https://doi.org/10.1111/1471-3802.12047>
- Pratt, S., Imbody, S., Wolf, L., & Patterson, A. (2016). Co-planning in co-teaching: A practical solution. *Intervention in School and Clinic*, 52(4), 243–249.
<https://doi.org/10.1177/1053451216659474>
- Protheroe, N. (2008, June). Teachers efficacy: What is it and does it matter? *National Association for Elementary School Principals*, 42–45.
- Ramírez, R., López, L., & Ferron, J. (2018). Teacher characteristics that play a role in the language, literacy and math development of dual language learners. *Childhood Education Journal*, 47, 85-96. <https://doi.org/10.1007/s10643-018-0907-9>
- Rexroat-Frazier, N., & Chamberlin, S. (2018). Best practices in co-teaching mathematics with special needs students. *Journal of Research in Special Educational Needs*, 19(3), 173–183. <https://doi.org/10.1111/1471-3802.12439>

- Ross, J. A., Hoganboam-Gray, A., & Hannay, L. (2001). *Effects of teacher efficacy on computer skills and computer cognitions of Canadian students in K-3*. Paper presented at the annual meeting of the American Educational Research Association, Seattle.
- Samuels, C. A. (2020, November 19). *Q&A on co-teaching with CEC President Marilyn Friend: Part I*. Education Week. <https://www.edweek.org/leadership/q-a-on-co-teaching-with-cec-president-marilyn-friend-part-i/2011/02>
- Sermier Dessemontet, R., & Bless, G. (2013). The impact of including children with intellectual disability in general education classrooms on the academic achievement of their low-, average-, and high-achieving peers. *Journal of Intellectual & Developmental Disability*, 38(1), 23–30.
<https://doi.org/10.3109/13668250.2012.757589>
- Social Science Space. (2017, August 21). *A parent of evaluation: Daniel Stufflebeam, 1936-2017*. Social Science Space.
<https://www.socialsciencespace.com/2017/08/parent-evaluation-daniel-stufflebeam-1936-2017/>
- State University, S. C. (2010). *Co-Planning, co-teaching, co-learning. co-teaching*. Retrieved June 26, 2022, from
<https://www.wpunj.edu/coe/departments/field/assets/Co-Teaching%20Color%20edited%207-25-18.pdf>
- Stufflebeam, D. L., & Shinkfield, A. J. (2007). *Evaluation theory, models and applications*. Jossey-Bass.

- Think Inclusive. (1970, May 25). *The official blog of MCIE*. Think Inclusive.
<https://www.thinkinclusive.us/>
- Tschannen-Moran, M. (2001). *Survey instruments to help you in your investigations of schools*. Research tools - Megan Tschannen-Moran's web site.
<https://wmpeople.wm.edu/site/page/mxtsch/researchtools>
- Tschannen-Moran, M., Johnson, D., & MacFarlane, B. (2017). Teacher self-efficacy in the language arts classroom. In D. Lapp & D. Fisher, *Handbook of research on teaching the English language arts* (4th ed., pp. 437-451). Routledge.
- van Dinther, M., Dochy, F., & Segers, M. (2010). *Factors affecting students' self-efficacy in higher education*.
https://www.researchgate.net/publication/251704672_Factors_affecting_students'_self-efficacy_in_higher_education
- Villa, R., & Thousand, J. (2021, June 29). *Making inclusive education work*. ASCD.
<https://www.ascd.org/el/articles/making-inclusive-education-work>
- Wagner, M., Newman, L., Cameto, R., & Levine, P. (2006). *The academic achievement and functional performance of youth with disabilities: A report from the national longitudinal transition study-2 (NLTS2)*. (NCSER 2006-3000). Menlo Park, CA: SRI International.
- Warju, W. (2016). Educational program evaluation using CIPP Model. *Innovation of Vocational Technology Education*, 12(1), 36-42.
<https://doi.org/10.17509/invotec.v12i1.4502>

- Wilburne, J., & Ozmen, C. (2017, October). *Using co-teaching to grow novice teachers' self-efficacy*. <https://www.centerforschoolsandcommunities.org/wp-content/uploads/sites/37/2018/12/using-co-teaching-to-grow-novice-teachers-self-efficacy-research-brief.pdf>
- Wright, P., & Wright, P. (1998). *IDEA 2004: Law and regulations*. Wrightslaw. <https://www.wrightslaw.com/idea/law.htm>
- Wynn, T. (2018). *General education teachers' self-efficacy to teach autistic students in kindergarten through fourth grade general education classrooms* (Publication No.10809567) [Doctoral dissertation, Gardner-Webb University]. ProQuest.

Appendix
Co-Teaching Survey

1. Are you a general education teacher? *

Yes

No

2. Are you a special education teacher? *

Yes

No

3. How many years have you been teaching? *

Less than 1

2-4 years

5-10 years

Greater than 10

4. How effective is the training for the Marilyn Friend co-teaching model? *

Not Effective 1 2 3 4 5 Very Effective

5. In response to the above question, what can be done to best meet your needs regarding the Marilyn Friend co-teaching training? *

Your answer _____

6. What do you believe to be the greatest barriers to using the Marilyn Friend co-teaching models at your school? Please check the top THREE barriers. *

- Lack of training/professional development
- Personality clashes
- Limited resources
- Scheduling issues
- Reluctance to lose control in the classroom/sharing classroom with another teacher
- Lack of time
- Lack of administrative support

7. Which of the Marilyn Friend co-teaching models do you and your co-teacher use the most? *

- One Teach, One Assist
- Parallel Teaching
- Station Teaching
- Alternative Teaching
- Team Teaching
- One Teach, One Observe

8. Based on your response to the above question, why do you use that particular Marilyn Friend co-teaching model most often? *

Long answer text

9. How do you monitor the success of the Marilyn Friend co-teaching models in your classroom? *

Long answer text

10. What is one benefit to the Marilyn Friend co-teaching models for your current students? *

Short answer text

11. Other comments about the Marilyn Friend co-teaching model strengths, areas of concern, or requests for information:

Long answer text
