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## Co-Teaching at the High School: One School's Approach to Create a Sustainable Co-Teaching Program Using Collaborative Learning and Learner Centered Theories

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CO-TEACHING AT THE HIGH SCHOOL: ONE SCHOOL'S APPROACH TO CREATE A SUSTAINABLE CO-TEACHING PROGRAM USING COLLABORATIVE LEARNING AND LEARNER CENTERED THEORIES

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## DEDICATION

This is dedicated to my wife Leigh, our kids Emmitt, Liv, Whit, and Zeke and my parents. I could not have done this without the love and support that each of you provided me along the way. I love each of you BIG!

## ACKNOWLEDGEMENTS

As I complete this major accomplishment of my academic journey, I am truly grateful for those who helped me along the way. I would like to thank Dr. Linda Silvernail for her critical eye, encouragement, and patience during the writing of this document. I would also like to thank Dr. Leigh D'Amico, Dr. Todd Lilly, and Dr. Xumei Fan for their willingness to be a committee member for my dissertation. Next, I would like to thank my parents for not only helping and supporting me through this academic challenge but more importantly through a personal challenge at the same time. Lastly, I would like to thank Leigh for her support and love throughout the entire process. You have made me a better person.

## ABSTRACT

Co-teaching is a method of instruction that utilizes the professional knowledge of a general education and special education teachers to best meet the needs of all students in the classroom. This mixed-methods action research study seeks to determine the comfort and knowledge levels of co-teachers and provide them with co-teaching professional development tailored to meet their needs. Furthermore, what professional development is needed for co-teachers to implement co-teaching will be analyzed along with the steps that need to be taken for co-teachers to be successful implementing co-teaching. Collaborative learning theory and learner centered ideology were used to provide a structure from which to conduct the research. Qualitative and quantitative data was collected using pre- and post-co-teaching surveys along with field notes collected during the professional learning community (PLC) professional development meetings. During data analysis themes that developed were the comfort of the co-teachers, the knowledge of the co-teachers, and the frustration of the co-teachers. Overall, the results of this mixed-methods action research study showed that professional development for co-teachers and administrative support for co-teaching is vital for a successful co-teaching program.

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## LIST OF ABBREVIATIONS

EAHCA.....	Education for All Handicapped Children Act
FAPE.....	Free, Appropriate Education
IDEA.....	Individuals with Disabilities Education Act
IEP.....	Individual Education Plan
LRE.....	Least Restrictive Environment
NCLB.....	No Child Left Behind
NHS.....	Northwood High School
PLC.....	Professional Learning Community

## **Chapter 1**

### **Introduction**

Before entering the administrative side of high school education, I taught social studies at Northwood High School (pseudonym) and Southlake High School (pseudonym), two high schools in the same district, for eleven years. During this time my teaching style developed from a teacher-centered approach into a learner-centered approach. The change in teaching style was due to being asked by the administration to work with a special education teacher and implement co-teaching instruction in my classroom. I was excited about the opportunity to work with a special education teacher and change my instructional methods to be more inclusive for all students, regardless of learning ability. I eagerly looked forward to professional development opportunities to better understand co-teaching and planning lessons together.

The first professional development opportunity that I was given was to observe a kindergarten teacher. At first, I was very skeptical as I did not know how well the experience would translate to high school. As I watched the kindergarten teacher and teacher aide teach different groups of students and move around the room I was amazed. Students were working on their assignments either individually or in small groups and everyone appeared engaged. Every question, concern, and correct or wrong answer was addressed by either the teacher or the teacher aide during the class. What started as skepticism quickly changed to excitement as I visualized implementing small group co-teaching instruction in my class. As I worked on developing small group co-teaching

lessons, I patiently awaited other professional development opportunities, but much to my surprise and dismay, those opportunities never happened. I focused on trying to plan lessons with the special education teacher with whom I had been partnered, but we found out we would only be working together the next year during the final two weeks of the spring semester. We were able to plan some lessons over the summer, but our schedules did not allow us to truly plan out an entire semester's worth of lessons. To make the situation worse, we found out that we would not have the same planning block during the coming school year.

Despite the setbacks and lack of support from the administration, the special education teacher and I worked together through trial and error to develop a co-teaching instructional design that worked for us. Unfortunately, at the end of the school year, we were informed by the administration that we would not be working together as co-teachers for the coming school year. This withdrawal of support from the administration and a change of my special education partner happened for the next four years. I was able to work with the same special education teacher once, but it was not for consecutive years. As a teacher, I believed in the potential of co-teaching instruction, but I never felt support from the administration, nor did I feel that I was given the professional development I needed in order to successfully implement the co-teaching instructional design.

Fast forward six years from my last year as a co-teaching teacher, and I am now the principal of Northwood High School (NHS). The current co-teaching teachers at NHS were not teaching at the time co-teaching was implemented within both high schools in our district. In addition, as an administrator, I know that we have not supported these

teachers with professional development, and we have not invested enough effort into determining what they need to be successful as co-teaching teachers.

### **Problem of Practice**

Students of all abilities and achievement levels are placed in co-teaching classrooms. For some, it is pure chance that they end up in a co-taught class, but for others, their schedule is determined by their Individualized Education Plan (IEP), which gives them specific accommodations based on their learning disabilities (Blackwell & Rossetti, 2014 & Yell et al., 2016). Accommodations may include extended testing time, copies of notes, oral administration of tests, and many other strategies to support academic success. One accommodation that several students have is that they must be in a co-taught math and/or English class. Cook and Friend (1995) point out that a major benefit of co-teaching “is that the unique perspectives and strengths of general educators and special educators or other specialists are brought together to create teaching approaches and instructional strategies that could not occur if just one teacher were present” (p. 5). According to Tremblay (2013), “Special education services are now taking place within the general [education] classroom in a co-teaching approach with the general educator” (p. 251). She also stated, “Co-teaching collaboration involving general and special education teachers was the most used service organisation [sic] model in the inclusion setting” (p. 251). At NHS, our inclusion model followed the co-teaching collaboration model mentioned by Tremblay, but I believe we are not as effective as possible due to the lack of formal professional development offered to co-teachers.

The problem of practice for this action research study is that the teachers at NHS have not received any professional development or administrative support to successfully

implement the co-teaching instructional practices. The problem resulted from the fact that most NHS co-teaching teachers had never received dedicated professional development to successfully implement the co-teaching instructional practices. Without proper training, resources, and ongoing professional development co-teachers were not able to reach their full potential as co-teaching teachers. Furthermore, without investing in the teachers the true impact of co-teaching, which is the benefits that the students experience from being a part of a co-taught/inclusion classroom, would not come to fruition.

### **Background Literature**

As mentioned by Cook and Friend (1995), having two teachers in the classroom can prove to be very beneficial not only for students but also for teachers. Traditionally, teachers work alone in their own classrooms without the help or support of an “outside” teacher. Friend and Reising (1993) point out that during a typical co-teaching classroom setting, the “classroom structure, instructional format, and leadership [does] not change” (p. 7). According to Cook and Friend (1995) *co-teaching* is a very broad term, and instruction can look very different depending on what school or classroom a person visits. For example, a special education teacher may interact mainly with special education students only, or they may also be an extra set of eyes for discipline issues (Cook et al., 2021). Research suggests that co-teachers who are provided proper professional experience have more success than co-teachers who have little or no professional development (Friend et al., 2010; Mofield, 2020; Simmons & Magiera, 2007).

Chitiyo and Brinda (2018) discuss in depth the importance of preparing co-teachers to be successful in the implementation of co-teaching. “If the teachers are not

adequately prepared in the use of co-teaching, they might not use the practice, thereby limiting their chances of meeting the needs of all students in their inclusive classrooms” (p. 48). They go on to say that if teachers are underprepared, “they may be forced to use practices or instructional delivery models that do not meet the needs of all students” (p. 48). Studies point to the need to properly prepare co-teachers to work together to benefit all students taught by the co-teachers (Austin, 2001; Causton-Theoharis & Theoharis, 2008; Chitiyo & Brinda, 2018; Cook et al., 2021; Lapp et al., 1996; Mofield, 2020; Walther-Thomas, 1997)

Jung et al. (2019) says that just because there is more than one teacher in a classroom it does not automatically mean that true co-teaching is taking place. Furthermore, Mastropieri and Scruggs (2001) mentioned that a major characteristic of a truly successful co-teaching classroom is the level of support provided by the special education teacher. How the general and special education teachers at NHS arrive at that high level of support from both educators is one of the main issues with our co-teaching program. Overall, research studies suggest that co-teaching instructional methods can be beneficial for students, but the general and special education teachers must be given the proper training and planning time to successfully implement the strategies (Bryant & Land, 1998; Dieker & Murawski, 2003; Friend & Reising, 1993; Sims, 2008; Villa et al., 2005). Rather than merely a label, co-teaching must indicate how a classroom is organized and taught.

The literature clearly points to the benefits of co-teaching, but co-teachers must be trained and supported by the administration for truly impactful results to occur. For years, the administration at NHS has been placing general and special education teachers

together in the same classroom, calling it co-teaching, and expecting great results from just having the two professionals work together. If the co-teachers of NHS are to have an impact on student achievement, then they need professional development to help them create a co-teaching plan of action to benefit their students. In addition, teachers need the support of the administration to take the necessary risks required to develop a successful co-teaching curriculum.

### **Theoretical Framework**

The theoretical framework used to address the problem of co-teachers needing more support and professional development was a blending of collaborative learning theory (Lew, 2020, Lortie, 1975; Shakenova, 2017) and learner-centered ideology (Schiro, 2013). These two theories were used to address the issue of developing true collaboration between special education and general education teachers (co-teaching) while still focusing on each student's learning needs.

Collaborative learning theory is grounded in the ideas of Lev Vygotsky's (1978) social development theory, which highlights the importance of social interaction and communication in learning (Lew, 2020). The social interaction and communication of collaborative learning theory is a process where a "group (or groups) of individuals learn from each other by working together to solve a problem, complete a task, create a product, or share one's thinking" (Lew, 2020, p. 1). Furthermore, Shakenova (2017) provides the following definition for collaboration: "shared values, decision making about teaching practice and interaction between teachers, which promotes students' performance and the professional development of staff" (p. 35).



Teaching typically takes place in a classroom where only one teacher is present and is in complete control of curriculum, assessment, and discipline decisions. Lortie (1975) believes that teacher isolation in the classroom prevents teachers from improving their creativity and instruction and that a major way to improve teacher creativity and instruction is through teacher collaboration. Shakenova (2017) mentions that some studies have proven that “teacher learning can be positively improved through collaboration with colleagues, through sharing ideas, experience, and resources, through giving feedback in order to become reflective about the teaching practice, and through supporting each other” (p. 35).

Along with collaborative learning theory, learner-centered ideology was used as a part of the theoretical framework. Learner-centered ideology focuses on the needs and concerns of the individual along with the concept that students develop their own meaning by interacting with other students and teachers (Schiro, 2013). Teachers who implement a learner-centered focus observe students and the ways they interact with other students, as well as with the content, curriculum, and the other teacher (Crumly, 2014 & Rallis, 1996). This process is a continuous loop of reflection and evaluation of each learner, followed by adjustments to meet the specific needs of the learner. Based on the information gathered from the reflection and evaluation, the teacher can make modifications to

the content, arrangement, and structure of the classroom; groups students for instruction; gather the class for activities such as storytelling and discussion; suggest, change, extend, or redirect student activity; and interact with students to support their learning, growth, and development. (Schiro, 2013, p. 138).

Finally, learner-centered ideology draws from theorists such as John Dewey (1938), Jean Piaget (1957), and Lev Vygotsky (1978) all of whom focused on how students learn. Hirtle (1996) mentions that John Dewey “sees education coming as a result of the empowerment of the learner in a social situation” (p. 91). Powell and Kalina (2009) discuss the importance of Piaget’s concepts of assimilation and accommodation as children progress through his four stages of development, “Recognizing that this process occurs within each individual student at a different rate helps the teacher facilitate constructivist learning” (p. 243). Continuing with how students learn, “Vygotsky believed that interaction with others and with the cultural environment contributes to human cognitive development” (as cited in Nyikos & Hashimoto, 1997, p. 507). The above concepts along with other concepts such as “respect for children’s natural interests, their natural developmental stages, learning through experience and discovery, the recognition of the function of play in learning, and individual differences of each child” make up the foundational beliefs of learner-centered ideology (Shah, 2020, p. 51).

Together, collaborative learning theory and learner-centered ideology provide the needed framework to study co-teaching. Collaborative learning is at the core of co-teaching because general education and special education teachers work together to implement curriculum and meet students’ learning needs. Having two teachers in the classroom is unique as typically classrooms have one teacher who makes all the decisions about curriculum, assessments, assignments, expectations, discipline, and the list goes on. Adding a second teacher in the classroom increases the ability to reach and teach students in a more effective manner. Furthermore, the student-to-teacher ratio is cut in half, which allows for more interaction between students and at least one of the teachers.

Cook and Friend (1995) point out that “co-teaching can be characterized as a means of bringing the strengths of two teachers with different expertise together in a manner that allows them to better meet student needs” (p. 3). Learner-centered ideology is another key aspect of co-teaching as both teachers strive to meet the individual needs of all the students. Carty and Farrell (2018) point out that co-teaching benefits all students and that special education students truly benefit as they can be supported discreetly in a blended environment where their learning can be enhanced by interaction with general education students.

### **Research Questions**

The underlying problem of practice for this study is that the co-teaching model at NHS was inadequate in meeting the needs of the teachers and students. Consequently, the purpose of this action research study was to examine the effectiveness of co-teaching teachers working together in a professional learning community (PLC) to develop an effective model of co-teaching at NHS. This co-teaching model of instruction would help current and future teachers at NHS successfully implement co-teaching. When co-teachers collaborate, how can they be sure that the structure of their classroom and lessons will benefit all students? I conducted a mixed-methods action research study to determine what co-teaching concepts co-teachers believed should be addressed to create an adequate co-teaching model of instruction. This study will answer the following research questions:

1. What are the current levels of comfort and knowledge of co-teachers using the present co-teaching method of instruction?

2. What professional learning is critical in preparing teachers to implement co-teaching successfully?
3. What steps need to be taken to successfully prepare co-teachers to implement co-teaching?

These research questions were developed to discover what co-teachers believe they needed to create an adequate co-teaching model of instruction. By identifying levels of comfort and knowledge, I was able to establish a baseline of the current co-teaching model and identify areas in which co-teachers believed they needed to improve to become better practitioners of co-teaching. Using the co-teacher's input, I was able to develop topics for co-teachers to discuss in the PLC meetings, which helped us create a more adequate co-teaching model of instruction.

### **Positionality**

In action research studies, it is important to know and understand the positionality of the researcher as this will have an impact on how the researcher interacts with those participating in the study. Herr and Anderson (2015) make the point that an action researcher must ask, "who am I in relation to my participants and my setting" (p. 37)? This is key because this will have some impact on the answers and information provided to the researcher. Herr and Anderson (2015) go on to identify several positionalities that a researcher can take on and point out that "the notions of insider and outsider are multilayered and fluid and can shift at various times during a research study" (p. 37). In this action research study, the participants are the general education teachers and special education teachers who co-taught. As the researcher, I took on the positionality that Herr and Anderson (2015) referred to as insider in collaboration with other insiders, which can

be beneficial by offering “opportunities for personal, professional, and institutional transformation” (p. 47).

In my position as the principal of NHS, I assumed the role of an insider, even though I am in the role of administrator supervising the participants in the study. I worked with the general education and special education teachers who are were also insiders at NHS. An issue that I could have experienced with my positionality was the possibility of being treated like an outsider because I am the principal. This could have been a drawback on the overall outcome of the study if the co-teachers had hesitated to be totally honest with their responses because their principal was conducting the study. I believe that working closely with the participants helped them become comfortable with me in the role of researcher and to see me as a true insider working with other insiders. Furthermore, I believe that establishing a high level of expectations with the teachers helped our relationship throughout the entire study. Nordick et al. (2019) point out that when “setting high expectations for collaboration among teachers, leaders create high levels of trust” (pp. 250-251). Creating trust was key, as the teachers involved in the study had to be comfortable enough with me to speak honestly about the study without fear of it coming back up in a setting outside of the study.

Besides the role of principal of NHS, I had to acknowledge the values, beliefs, and experiences that I brought to the study. The biggest experience that I brought to the study was my own co-teaching experiences. I was a co-teacher who worked along with a special education teacher for four years. This experience could serve as a double-edged sword during the study. My knowledge and experiences as a co-teacher could benefit the co-teachers involved in the study, but at the same time, those teachers may not want or

need advice from my experiences. I had to be cognizant of whether the co-teachers involved in the study would be accepting of any advice I could possibly give. Overall, I had to be mindful of my positionality, values, experiences, and status during the study, for the participants to be as honest and open as possible. Understanding my positionality and the impact of my positionality on those involved in the study allowed me to design a study that gathered authentic data to help answer the research questions.

### **Research Design**

A mixed-methods action research design was appropriate because both qualitative and quantitative data collection allowed for a better understanding of the issue at hand. Dawadi et al. (2021) mentioned that a mixed methods design allows the “interweaving (of) qualitative and quantitative data in such a way that research issues are meaningfully explained” (p. 27). They go on to say “the use of mixed-methods enables researchers to answer research questions with sufficient depth and breadth and helps generalise [sic] findings and implications of the researched issues to the whole population” (p. 27). In conclusion, Almalki (2016) pointed out that an mixed-methods “approach enables a greater degree of understanding to be formulated than if a single approach were adopted” (p. 291).

The study took place at NHS which is in a small rural town in a southeastern state. According to the district database, in 2022 the school had approximately 600 students and 60 faculty and staff members. The participants were teachers who were implementing co-teaching in their classrooms. At NHS, co-teaching took the form of inclusion, which is the pairing of general education and special education teachers. These co-teachers worked together to serve the general education and special education students

in the same classroom. The participants will consist of seven general education teachers and two special education teachers, whose teaching experience ranged from six years to almost 30 years, and their co-teaching experience ranged from one year to seven years.

The research design started with a Google Form pre-co-teaching teacher survey to determine the co-teachers comfort level with co-teaching and topics to discuss during the PLC. The PLC met for three total meetings in which co-teachers discussed the various concepts of co-teaching that worked and what measures needed to be taken to improve co-teaching at NHS. Co-teachers and I worked together to determine the topics of the PLC meetings. Finally, the research concluded with a Google Form post-co-teaching teacher survey that identified the aspects of the PLC that improved co-teaching and the concepts of co-teaching in which teachers still needed support. Furthermore, during the research phase, data was collected utilizing field notes taken during the PLC meetings.

### **Data Collection and Analysis**

The collection of data began with a Google Form Pre-co-teaching teacher survey that help establish topics for the PLC meetings. The PLC meetings allowed co-teachers to improve their co-teaching skills and provided an opportunity for them to discuss what concepts worked. Data collection concluded with a Google Form Post-co-teaching teacher survey.

Quantitative data was collected using two different researcher-created questionnaires. The first Google Form (see Appendix A) was in the form of a teacher survey with a Likert scale and free response questions that gauged the general and special education teachers' comfort, knowledge, and experiences with co-teaching. This data was used to develop the concepts covered in the PLC. The questionnaire was sent to the

participants in a Google Form which automatically collect the data in a Google Sheet and created pie graphs when applicable. This data was coded using a color-coding scheme that identified relevant concepts and topics that emerged when the data was analyzed.

The goal of the PLC was for the co-teachers to create a more adequate co-teaching model of instruction. The topics and concepts that participants identified as strengths and areas of concern were the focus of the PLC sessions. In addition, the questionnaire data helped identify which participants were comfortable with different instructional aspects of co-teaching. During the PLC meetings, I kept a researcher journal to record thoughts, observations, and struggles of the co-teachers. This journal helped determine topics discussed during the PLCs and to help develop talking points and possible focus concepts. The same color-coding scheme was used to analyze the content of the researcher journal. The PLC meetings were recorded to allow for transcriptions.

Finally, after three PLC meetings the co-teachers took a Google Form Post-co-teacher teaching survey, which consisted of the Liker scale and free-response questions, to gauge the effectiveness of the PLCs (see Appendix B). The data from the questionnaire used a color-coding scheme that determined what aspects of co-teaching the participants felt they had mastered and what concepts they still needed to focus on. Furthermore, participant thoughts on the next steps for the co-teaching program at NHS were also be collected. This questionnaire was sent to the participants in a Google Form.

### **Significance of Study**



An action research approach was used for this study as opposed to a traditional research approach. One of the main differences between action research and traditional research, according to Herr and Anderson (2015), is in action research the “research participants themselves either are in control of the research or are participants in the design and methodology of the research” (p. 1). In a traditional research approach, the participants of the study are not in control of the research, nor are they involved in the design of the research. Action research served this study better than traditional research because it allowed me as the researcher to help design the study and build closer relationships with the co-teaching participants. Efron and Ravid (2013) point out that action research allows teachers and administrators to “take on the role of researchers and study their own practice within their classrooms and schools,” which allowed the research questions to develop “from events, problems, or professional interest that the educators deem important” (p. 4). Overall, action research allowed the researcher to develop a study that would have a direct impact on the students and teachers with whom they closely work. This allowed the researcher and teachers involved to improve as professionals and the students involved to gain new knowledge and skills.

Co-teaching is an instructional practice that has been analyzed before, so this action research study sought to build on existing research. Focusing on the collaboration between the general education teacher and the special education teacher was a key aspect of this study. Jung et al. (2019) point out that if there is more than one teacher working in the same classroom, it does not necessarily mean that true co-teaching is taking place. Therefore, it was important for teachers to understand what effective co-teaching practices looked like. Understanding the different roles that each teacher played and

working those roles out was very important to the success of the co-teaching relationship and the overall success of the implementation of the co-teaching methods. In addition, the impact of the administrator cannot be stressed enough, and the administrator needed to be actively and visibly involved in the planning and implementing of co-teaching for the program to experience success (Nierengarten, 2013). The collaborative effort between the co-teachers along with the administrator collaboration helped contribute to the research on co-teaching and the larger field of education.

When considering the intended audience of this action research, it is easy to see that the participants and future co-teachers at NHS would benefit the most. However, action research should not only benefit the local population. In fact, Herr and Anderson (2015), state an “action research study for a dissertation must consider how the knowledge generated can be utilized by those in the setting, as well as by those beyond the setting” (p. 6). Therefore, the information gathered during this action research study could have greater benefits than the participants involved in the study. The co-teaching curriculum developed from the PLC sessions could have a benefit on a larger audience such as the co-teachers at Southlake High. In addition, other high schools could improve their co-teaching practice based on information from this study. Furthermore, students should benefit from this study as their teachers become more comfortable and knowledgeable in implementing co-teaching.

### **Limitations of Study**

One limitation of this study was that it is very specific to the location where the research occurred. Yes, data, results, and information from the study could be taken and applied elsewhere, but it does not mean that the same results would be achieved. In

addition, the small participant pool and time constraints could have been additional limitations, and further limitations may become more apparent once the study is conducted.

### **Organization of the Dissertation**

The following chapters of this action research study will describe the collaborative efforts of the NHS co-teachers (general and special education) and the principal to create an adequate co-teaching model of instruction. Chapter One has provided an overview of the problem of practice that lead to the desire to research the issue, followed by discussions of the theoretical framework, research questions, and research methods, and concluded with a review of the significance and limitations of the study. The literature review of the study in Chapter Two includes a thorough discussion of the relevant literature of collaborative learning theory, learning-centered ideology, and co-teaching. Chapter Three provides an in-depth explanation of the research methodology, context, participants, research methods, and action plan. Chapter Four contains the research findings and a discussion of the impact of those findings. Chapter Five concludes the dissertation, with reflection, discussion of changes, an action plan, and implications for any future research.

### **Glossary of Terms**

*Action Research:* A research approach where an educator conducts the research, “in their own settings in order to advance their practice and improve their students’ learning” (Efron & Ravid, 2013, p.2).

*Inclusion:* Instructional method in which regular education and special education students are grouped together in the same classroom.

*Individualized Education Program:* A written plan for a child with a disability that is developed, written, and revised in a meeting of a team consisting of the child, parents, teachers, administrators, guidance counselors, and other professionals that can help develop the best plan to benefit the child.

*Professional Learning Communities (PLC):* a group of educators who come together to collaborate, learn with, and learn from each other on topics and concepts they have identified

## **Chapter 2**

### **Literature Review**

The problem of practice addressed in this action research study was the co-teachers at Northwood High School (NHS) have not received adequate professional development or administrative support to successfully implement the co-teaching model of instruction. Co-teaching instruction has been used at NHS for ten or more years. When co-teaching was first implemented, general and special education teachers were provided training to have a better understanding of co-teaching. Over the years new teachers and administrators have joined the staff at Northwood, but limited professional development was provided to allow the new hires to be prepared for the challenges that co-teachers face. The lack of professional development for new hires and the changes in administration have resulted in a co-teaching program that is inadequate in preparing the co-teachers to successfully implement co-teaching, and therefore limits benefits to students.

To address the problem of practice, teachers were provided with training on co-teaching methods and inclusion best practices in the form of a professional learning community (PLC). Initial data was collected from teachers using a Google Form questionnaire to determine each participant's level of comfort and knowledge of co-teaching. The information from the questionnaire was used to determine the topics and concepts addressed in the PLC. During the PLC meetings, co-teachers shared their thoughts, feelings, and concepts that were working and concepts that needed to be

changed. DuFour (2011) mentions that the PLC “concept does not offer a shortcut to school improvement [but] it does provide a powerful, proven conceptual framework for transforming schools at all levels” (p. 162). The PLC allowed the co-teachers to have a voice in designing and developing the co-teaching model of instruction that they have lacked in previous years of co-teaching. Furthermore, the plan developed will be used to help prepare future co-teachers at NHS. The investigation was concluded with a Google Form questionnaire that gathered data about the success of the PLC along with areas that participants felt need additional focus and work.

The purpose of this study was to develop an adequate co-teaching model of instruction at NHS that would benefit the current co-teachers and students along with future co-teachers and students.

The research questions guiding this study are as follows:

1. What are the current levels of comfort and knowledge of co-teachers using the present co-teaching method of instruction?
2. What professional learning is critical in preparing teachers to implement co-teaching successfully?
3. What steps need to be taken to successfully prepare co-teachers to implement co-teaching?

This literature review was a very important part of this research. The literature review of this chapter will present a picture of the thought process for the study and the relevant literature that informed and guided that thinking. Efron and Ravid (2013) mention that the literature review allows the researcher to have “a better understanding of the background and context of the study” (p. 18). In addition, “Action researchers aim to

link theory to practice and connect what happens in their educational settings with the broader knowledge about teaching and learning” (p. 17). Overall, the review of the literature is a balance between an open-ended focus and a narrow focus. Without the literature review, the study is too broad and provides no clarity, but too narrow of a focus would result in not being able to examine all aspects of the problem. (Herr & Anderson, 2015).

A review of the literature revealed several themes that will be discussed in detail in this chapter. Several keywords and ideas were used including co-teaching, co-teaching strategies, co-teaching and administration, benefits of co-teaching, support for co-teachers, general and special education teachers and co-teaching, co-teaching and social justice, inclusion and social justice, collaborative learning theory, learner-centered ideology, and professional learning communities in databases including JSTOR, ERIC, Education Sources, SAGE Journal, and Google Scholar. From these databases sources including journal articles, books, websites, and doctoral dissertations were selected for review. The chapter will discuss the historical perspective on the problem of practice, the theoretical framework that underpins this study, a review of the literature surrounding co-teaching in professional learning communities, and a conclusion to the chapter.

### **Background on the Problem of Practice**

This study focused on the problem of practice that the co-teachers at NHS have not received adequate training and guidance to successfully implement the co-teaching method of instruction. A brief history of co-teaching provides a full understanding of the need for and importance of co-teaching. In addition, perspectives on co-teaching from co-

teachers and administrators will provide an understanding of the possibilities that could result from adequate training and guidance.

### **Historical Perspectives**

Historically, co-teaching started gaining traction during the late 1960s to ensure that students with disabilities would have access to the general education curriculum. What started as a grassroots effort among parents eventually resulted in the passage of the Education for All Handicapped Children Act (EAHCA) in 1975, which required all public schools receiving federal funds to provide children with physical and mental disabilities equal access to education. EAHCA was renamed the Individuals with Disabilities Education Act (IDEA) by Congress in 1990. IDEA provides several key elements for special education students; the ones pertinent to this study are the Individual Education Plan (IEP), least restrictive environment (LRE), and free, appropriate education (FAPE). An IEP team develops a plan that describes the specialized instruction and related services each child who is eligible for special education services will receive.

LRE is a part of federal law that requires students with disabilities to receive their education with nondisabled students to the maximum extent possible. Finally, FAPE is an important right for all American students in that education is free but also appropriate for their educational needs. In addition, FAPE must be provided to all special education students, and it must be provided in the LRE based on the student's disabilities (Keefe & Moore, 2004; Mastropieri & Scruggs, 2001; Obiakor et al., 2012; Perry, 2017). IDEA (2004) specifically says that LRE means:

To the maximum extent appropriate, children with disabilities, including children in public or private institutions or other care facilities, are educated with children



who are not disabled, and special classes, separate schooling, or other removal of children with disabilities from the regular educational environment occurs only when the nature or severity of the disability of a child is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily. [IDEA Section 612 (a)(5)(A)]

Furthermore, the passage of the No Child Left Behind Act of 2001 (NCLB) added a policy that benefitted all students. NCLB requires that all students, regardless of learning ability, have access to highly qualified teachers, this requirement creates a situation where it makes sense for general and special education teachers to work together to provide content and instruction support for students in the general education classroom (Villa et al., 2005).

By law, IDEA requires that students with disabilities must be provided FAPE and LRE and these concepts are being met by educators, teachers, and administrators who have implemented co-teaching and inclusion to fulfill the law. Keefe and Moore (2004) point out that “to meet the challenge of educating students with disabilities successfully in the general education classroom, collaboration between general and special education is essential” (p. 78). Since teachers and administrators must fulfill IDEA, it makes sense that co-teaching be developed around the concept of having general and special education teachers collaborate. Historically, that has been the case but recently co-teaching has expanded to include speech therapists, librarians, literacy specialists, technology specialists, and social workers just to name a few (Beninghof, 2020). “Driven by state and federal mandates to provide students with disabilities access to the general education curriculum” many schools are turning to the co-teaching method of instruction (Simmons

& Magiera, 2007, p. 2). From an equity standpoint co-teaching is “one service delivery model that shows promise for improved student outcomes” (Simmons & Magiera, 2007, p. 2).

### **Co-Teachers and Administrators View of Co-teaching**

Research studies suggest that co-teaching instructional methods can be beneficial for students, but the general and special education teachers must be given the proper training and planning time to successfully implement the strategies (Bryant & Land, 1998; Dieker & Murawski, 2003; Friend & Reising, 1993; Sims, 2008; Villa et al., 2005). Sims (2008) points out through her personal experiences as a teacher with three different co-teachers that “co-teaching is an excellent method of serving the needs of all students” but “lack of training, lack of planning time, and lack of choice in co-teachers can lead to disaster” (p. 59). Her experiences ranged from a very strong professional relationship and teaching partnership to a relationship that she referred to as a “disaster” that resulted in a class that misbehaved and had several students fail.

Bryant and Land (1998) mention co-teachers need to set time aside to plan on a daily and weekly basis to ensure successful co-teaching. They go on to point out that “it cannot be stressed strongly enough that planning time is sacred. It must be adhered to, respected, and used wisely. Planning is the insurance that co-teaching will be successful” (Bryant & Land, 1998, p. 28). Lastly, Dieker and Murawski (2003) acknowledge the difference between the general and special education teachers as professionals: typical co-teaching experiences have the general education teacher providing the content knowledge while the special education teacher serves in the role of a paraprofessional or student teacher. In fact, most co-teaching classrooms only implement the one-teach, one-

assist co-teaching method (Brawand & King-Sears, 2017; Patterson et al., 2009 & Scruggs & Mastropieri, 2017). Co-teachers have “to be taught how to recognize one another’s areas of expertise and to collaboratively build upon those strengths,” and this takes training and common planning time for the co-teachers to reach their full potential as a co-teaching pair (Dieker & Murawski, 2003, p. 3).

Furthermore, administration support for the teachers involved in co-teaching is tremendously important to the success of the teachers and students. Research studies point out that administration support is paramount for a successful co-teaching program (Brawand & King-Sears, 2017; Gupta et al., 2016; and Mastropieri & Scruggs, 2001). Brawand and King-Sears (2017) show that co-teachers who received professional development had great confidence in their ability to co-teach. Mastropieri and Scruggs (2001) discuss several characteristics of successful inclusive classrooms, one being administrative support. They go on to state that “all successful inclusion efforts observed were associated with administrative support, at the district and building level” (p. 266). Lastly, Gupta et al. (2016) found that “leaders with decision-making authority are in a position to encourage program-wide change toward inclusion” (p. 89). Administration plays a very big role in the overall success or failure of the implantation of co-teaching. Overall, there is a national and local historical need for co-teaching at NHS. In addition, historical research from co-teacher and administrator perspectives indicates that co-teaching can be successful and beneficial for all involved.

### **Theoretical Framework**

The theoretical framework for this study was based on a blending of collaborative learning theory and learner-centered ideology. Grant and Osanloo (2014) note that the

theoretical framework “serves as the structure and support for the rationale for the study, the problem statement, the purpose, the significance, and the research” in addition, “the theoretical framework provides a grounding base, or an anchor, for the literature review” (p. 12). The blending of collaborative learning theory and learner-centered ideology provided the foundation and framework for this study about co-teaching.

### **Collaborative Learning Theory**

Collaborative learning theory is based on the ideas of Lev Vygotsky’s (1978) “social development theory and zone of proximal development, which highlighted the importance of communication and social interaction in learning” (Lew, 2020, p. 64). Lew (2020) goes on to state that “collaborative learning theory is a process whereby a group (or groups) of individuals learn from each other by working together to solve a problem, complete a task, create a product, or share one’s thinking” (p. 63-64). Laal and Laal (2012) point out that collaborative learning “is an educational approach to teaching and learning that involves groups of learners working together” (p. 491).

Working together in a group is a key feature of collaborative learning. Shakenova (2017) drawing on the work of Dan Lortie (1975) notes that school improvement can be lacking due to the isolative nature of teaching because teachers are less likely to improve instruction and be creative. When teachers do collaborate “teacher learning can be positively improved through collaboration with colleagues, through sharing ideas, experiences, and resources” (Shakenova, 2017, p. 35). In fact, “research has shown that schools in which teacher collaboration is encouraged tend to have higher student achievement than less collaborative schools” (Schleifer et al., 2017, p. 9). Lastly, Ostovar-Nameghi and Sheikahmadi (2016) add that collaborative learning allows

teachers to learn from each other's experiences and that "not only does collaboration improve teachers' professional knowledge and experience, but it significantly improves student learning and achievement" (p. 199). The co-teaching method of instruction fits inside the collaborative learning theory nicely as co-teaching is built around the concept of two teachers collaborating to teach and improve student learning.

Several definitions of co-teaching exist (Brawand & King-Sears, 2017; Dieker & Murawski, 2003; Lava, 2012; Monson & Kenyon, 2018; Sweigart & Landrum, 2015; Walsh, 2012; Wilson & Michaels, 2006) but most scholars and researchers point to the simple definition provided by Cook and Friend (1995). Their definition of co-teaching is "two or more professionals delivering substantive instruction to a diverse, or blended, group of students in a single physical space" (p. 2). Cook and Friend (1995) point out that a benefit for co-teaching "is that the unique perspectives and strengths of general educators and special educators or other specialists are brought together to create teaching approaches and instructional strategies that could not occur if just one teacher were present" (p. 5).

Typically, classrooms have one teacher, and this one teacher makes all the decisions about curriculum, assessments, assignments, expectations, discipline, and all other major and minor decisions. By adding a second teacher in the classroom the ability to reach and teach students in a more effective manner is increased. Furthermore, the student-to-teacher ratio is cut in half which allows for more interaction between students and at least one of the teachers. Cook and Friend (1995) mention that "co-teaching can be characterized as a means of bringing the strengths of two teachers with different expertise together in a manner that allows them to better meet student needs" (p. 3). Just adding

another teacher to the classroom does not mean all the issues are addressed and the level of instruction and rigor will automatically increase. Bryant and Land (1998) point out that just adding a second teacher does not automatically translate to a successful co-teaching experience or benefits for the students. Co-teachers must be given the proper support and professional development to learn how to successfully implement the co-teaching model of instruction, this can prove difficult as co-teachers must first learn to collaborate with one another.

Traditionally, teachers have their own classroom and do not share that space with another teacher, but when it comes to co-teaching two teachers are being asked to come together for the common good of the general and special education students and this takes place within the classroom of the general education classroom. Friend and Reising (1993) found that a typical “classroom structure, instructional format, and leadership do not change” during co-teaching (p. 7). Co-teaching can take the form of a general education teacher teaching their class like they normally would and the special education teacher taking on the role of a babysitter for the special education students. Jung et al. (2019) points out that the above example is not co-teaching and that if there is more than one teacher working in the same classroom it does not necessarily mean that true co-teaching is taking place. Therefore, it is important for teachers to understand what effective co-teaching practices look like.

Understanding the different roles that each teacher plays and working those roles out is very important to the success of the co-teaching relationship and the overall success of the implementation of the co-teaching methods. Murawski and Hughes (2020) state that teachers certainly like having their own classrooms but as teachers experienced

inclusive settings more and more their attitude toward co-teaching became more positive. Furthermore, they found that special education teachers need to be seen for the skills they do bring to the co-taught classroom, such as “abilities to create and administer specially designed instruction as well as their strengths in collaboration, differentiation, Universal Design for Learning, (and) behavior support” (p. 186). Collaborative learning theory provides the framework for the co-teachers to come together to understand how to work together for the benefit of themselves and their students.

### **Learner-Centered Ideology**

Learner-centered ideology is focused on the needs and concerns of the individual learner (Schiro, 2013) and built upon the ideas and concepts of theorists like Dewey (1938), Piaget (1957), and Vygotsky (1978). Learner-centered educators try to see the world through the eyes of their students. Co-teaching fits within the learner-centered ideology as the co-teachers attempt to provide instruction that is learner-centered and based on the individual needs of each student. When a teacher embodies learner-centered ideology they are not worried about “*if* a student can learn, but rather under what conditions a student *will* learn” (Rallis, 1996, p. 22). While learner-centered teachers know that students will learn they know that not all students learn the same, and steps must be taken to provide as individualized instruction as possible.

Co-teaching provides teachers with the ability to create instructional opportunities that are specifically tailored for the individual learner or small groups of learners. One way to tailor instruction to the individual learner and small groups of learners is through differentiation. Differentiation of instruction is a key concept of both learner-centered ideology and co-teaching and is an “approach that enables teachers to plan strategically to

meet the needs of every student [and is] deeply grounded in the principle that there is diversity within any group of learners and that teachers should adjust students' learning experiences accordingly" (Watson & Reigeluth, 2008, p. 46). In addition, Crumly (2014) mention that differentiation "allows for a variety of learning avenues for students to acquire content, to process and make sense of the information, and, finally, to develop practical applications for students to learn effectively" (p. 80-81).

Co-teachers can approach differentiation in several ways by utilizing Cook and Friend's (1995) six different approaches for co-teaching. The first approach is called one teach, one observe in which one teacher is responsible for the instruction, typically the general education teacher and the special education teacher is responsible for gathering observational data on one student, a group of students, or the entire class. Station teaching is the second type of co-teaching, here students are divided into three or more groups. Each teacher provides instruction at separate stations and students work on different assignments (group or independent assignments) at the other stations. Students rotate through the different stations during one class period. The third co-teaching approach is parallel teaching, in which the class is divided into two groups and the teachers instruct a group at the same time. The instruction can be identical or presented in different ways to better serve the students. Alternative teaching has most of the students remaining with one teacher while a small group of students goes with the other teacher to receive pre-teaching, reteaching, enrichment, or assessment. Teaming involves both teachers instructing the class and adding their own contributions to the instruction throughout the lesson. Finally, one teach, one assist requires that the students remain in one group and one teacher provides most of the instruction while the other teacher



interacts with students to keep them on task, re-explain concepts, and co-instruct (Friend, 2016 & Friend et al., 2010). Overall, there are many different approaches that general and special education teachers can use when co-teaching but according to researchers some approaches are more effective for students and teachers than other approaches.

### **Co-Teaching Perspectives and Benefits**

When it comes to research on co-teaching there are a plethora of different research studies that focus on different aspects of co-teaching. For example, McGhie-Richmond et al. (2013) conducted a mixed-methods study on the perspectives of teachers involved in co-teaching. The results from this study come from 123 elementary to secondary teachers in rural Alberta, Canada. Data was collected by using a survey to examine teacher attitudes and semi-structured interviews that focused on co-teaching practices.

Quantitative data suggests that teachers have an overall positive view of co-teaching but a closer look at the data suggests that elementary teachers had a more positive view of co-teaching compared to their secondary counterparts. Qualitative data lead to the formation of the following five themes: definition of inclusion, teaching philosophies, attitudes toward inclusion, essential supports, and perceptions of responsibilities. For the definition of inclusion, teachers were asked their opinions about inclusion and their meaning of the term. For teaching philosophies theme the teachers expressed their overall philosophy of education, elementary teachers focused on both academic and social aspects of education while secondary teachers focused mainly on the academic aspects of education.

The data showed that teachers' attitudes toward inclusion were both positive and negative and both elementary and secondary teachers reported negative attitudes about inclusion such as the lack of resources. Several essential supports were identified, and teachers reported that collaboration was key to their making co-teaching work, especially scheduled planning times. The last theme, perceptions of responsibility, focused on the concept that elementary teachers were more involved in the educational plans of their students than secondary teachers. The reasoning for this was that elementary teachers typically are the only teachers that students work with during the day, but secondary teachers see many different students during the course of the school day. Finally, the researchers felt that further research was needed especially about the attitudes of the secondary teachers.

Wilson and Michaels (2006) focused on students' perceptions of co-teaching in their study. In total, 346 secondary students (127 special education and 219 general education) were surveyed about their perceptions of co-teaching. A mixed-methods study was conducted in which students were surveyed to collect quantitative (Likert scale) and qualitative (open-ended questions) data. Data showed that general and special education students both gave co-teaching a favorable rating. Furthermore, the researchers developed five themes for the benefits of co-teaching, which are the availability of help, structural supports, multiple perspectives and styles, skills and grades, and genetic statements. Availability for help focused on the fact that individual support and assistance were available for students during the co-taught class as students needed the teachers' support or assistance. The structural support theme showed that the co-teaching structure provided a more flexible and diverse instructional approach. The multiple perspective and

styles concept allowed students to benefit from different teaching styles, opinions and approaches comprised the multiple perspectives and style's theme. The skills and grade's theme showed that students were able to develop more skills and earn better grades due to being in a co-taught class.

The researchers also developed five themes for the drawbacks of co-teaching, which were no drawbacks, structural supports, multiple perspectives and styles, skills and grades, and generic statements. With no drawbacks, the data showed that there was no real drawback from co-teaching. The drawback of structural support pointed out that students believe it was more difficult to get away with anything during class and that they were always being monitored. The multiple perspectives and style's theme focused on the idea that students may get confused from different directions for the co-teachers which may result in student confusion. Lastly, the skills and grade's theme mentioned that students felt that teachers gave more assignments and held students to higher grading standards and expectations. Generic statements were a common theme for benefits and drawbacks and centered on statements that were too short or generic in nature. Overall, students felt that co-teaching had helped them improve but no statistical data was collected to prove this.

Nierengarten and Hughes's (2010) qualitative study focused on what teachers wish administrators knew about co-teaching in high schools. They conducted interviews of teachers from a single high school. Each teacher was interviewed twice for 60-minutes over a two-year period and their experiences and perceptions about co-teaching were collected. Furthermore, teachers participated in three 90-minute focus group interviews.

The researchers developed the following themes from the data collected. First, the teacher training theme showed that teachers who volunteered for co-teaching found the training useful and necessary while those teachers who were forced to do co-teaching approached it with hesitation and resistance. For the administrator training theme data showed that district and building administrators had no training and did not fully understand what is required to make co-teaching successful. In addition, the school and district did not take ownership of the co-teaching project and only offered teachers verbal support. The compatibility theme was closely related to the amount of time spent planning. This theme showed that teachers either used what time they could for planning, which was very beneficial for those teachers, or the teachers struggled because of a lack of planning time.

Planning time is one of the biggest issues for co-teacher and this theme showed that additional planning time would have been very helpful for the teachers. The student schedules/natural proportions theme shed light on the fact that a computer created the class schedules resulting in 75-80% of students placed in one class being either on an IEP or were labeled at-risk students. Attention to students' needs was not taken into consideration and special education students could have benefitted from a schedule that was done by a person and not a computer. The theme of respect for teaching assignment showed that special education teachers were taken out of co-teaching assignments to be a substitute teacher, furthermore, "administration needed to see co-teaching as a foundational piece to the general education classroom and not just an add-on that could be manipulated when a need arose" (Nierengarten & Hughes, 2010, p. 9).

For the administrative support theme teachers felt that the role of the administrator to the success of co-teaching could not be said enough and almost every factor of the co-teaching project is dependent on the support of the administration. Professional development was the final theme and teachers felt that ongoing professional development and support were key and that continued professional development would have helped them progress as co-teachers. Overall, the researchers felt that co-teaching could be beneficial but required attention and investment of time, resources, and energy.

Murawski and Swanson (2001) conducted a meta-analysis of co-teaching research in which they conducted a comprehensive literature review using three different approaches. First, they searched ERIC, PsychLit, and EdInfo databases for articles about co-teaching that serviced general and special education students. Next, they conducted a hand search of all the articles cited in review articles, a process they referred to as “footnote chasing” (p. 259). Lastly, they conducted a search of the past ten years of *Exceptional Children*, *Teacher Education and Special Education*, and *Remedial and Special Education*. They discovered 89 articles that mentioned *co-teaching* for general and special education students but eliminated articles that lacked the quantitative data they were looking for, which left 37 articles. During the next step, they analyzed the 37 articles using the following criteria:

- the study included sufficient quantitative data that would enable the researcher to calculate effect sizes for the intervention
- the study included four characteristics that identify the intervention as a form of co-teaching

- the co-teaching treatment condition lasted for more than a 2-week period, not including pretesting and post testing (Murawski & Swanson, 2001. p. 259).

This left the researchers with six articles for the quantitative synthesis which resulted in an overall mean effect size of .40 which may suggest that co-teaching can be a moderately effective procedure for impacting student outcomes. The authors do point out that the findings “should be interpreted cautiously because only three studies included effect sizes related to students with reported disabilities” (p. 264).

What the above studies mean for the current action research study on co-teaching is that there is a need for more research in the different components of co-teaching. Looking at the general and special education teachers in the co-teaching relationship it is important that these teachers receive the training required to implement co-teaching successfully. Furthermore, time must be given to these teachers to develop a trusting professional relationship that ensures both teachers have equal authority and contribution to the co-taught classroom. Administrators play an important role in the overall development and success of the co-teaching effort. Without their support, guidance, and leadership the co-teaching endeavor will not have the successful impact that it could have. Finally, the student’s perception and preference of co-teaching should be considered when developing the program.

### **Conclusion**

At Northwoods High School, we have two special education teachers who co-teach throughout the year, one teaches math and the other teaches English. Within those two subjects, there are eight general education teachers (four math teachers and four

English teachers) who also participate in co-teaching with the two special education teachers. Of the ten teachers involved a few have received training on what co-teaching should look like and only one has received training on co-teaching. The training and support that has been provided by the administration at NHS have been piecemeal at best and to compound the issue little to no guidance and expectations have been provided from the current and former administrators.

Co-teaching is an instructional method that can benefit the students, teachers, and administrators if a well-thought-out plan of implementation, instruction, and support is collaboratively developed and monitored. Research suggests that administrators must provide support and encouragement along the way and be willing to lead and allow teachers to take risks in a safe environment. Furthermore, teachers must be given the opportunity to have a common planning time and work with the same co-teacher from semester to semester and year to year to develop the proper relationship that co-teaching demands. Finally, students' perspectives and perceptions of co-teaching need to be considered as students who may not actively participate in class seem to open more in a co-taught class. This action research study sought to determine what happened to co-teachers' knowledge and comfort of co-teaching when co-teaching is taken into consideration when developing an adequate co-teaching model of instruction.

There were two main goals of this mixed-methods action research study. First, the study determined the current co-teacher's knowledge and comfort level of co-teaching through a Pre-co-teaching Teacher Survey. Secondly, co-teacher feedback and insight was gained from PLC meetings which resulted in a tailored professional development experience to better fit the needs of the co-teachers. The next chapter discusses in detail

the research design and methods used for this study. Chapter 4 provides an in-depth analysis and presentation of the quantitative and qualitative data collected from the study. Concluding Chapter 5 describes how the results of this study connect to the big picture of co-teaching, including but not limited to co-teaching theory, practice, and research.



## **Chapter 3**

### **Research Design and Methods**

Northwood High School (NHS) offers students several different math and English classes for students to meet the state requirements for graduation. Some of these classes utilize the co-teaching model of instruction. The teachers of the co-taught classes have a variety of experiences and training that range from very little experience and training to several years of experience and training. Often this training took place ten or more years earlier or while they were at a different high school. Furthermore, administration and guidance have given little thought or consideration concerning co-teaching in developing the master schedule. Typically, co-taught classes are forced into the schedule, resulting in co-teachers without common planning periods. In addition, the same special and general education teachers are not paired together from year to year or semester to semester. The problem of practice for this action research study was that the current model of co-teaching is inadequate in meeting the needs of teachers and students.

Grant and Osanloo (2014) stress the importance of theoretical frameworks in that “the theoretical framework is the foundation from which all constructed (metaphorically and literally) for a research study” (p. 12). The theoretical framework of this action research study will use a blending of collaborative-learning theory (Lortie, 1975; Shakenova, 2016) and learner-centered ideology (Schiro, 2012).

Lev Vygotsky, considered by many to be the founding father of social constructivism, “believed in social interaction and that it was an integral part of learning.

Social constructivism is based on the social interactions of students in the classroom along with a personal critical thinking process” (as cited in Powell & Kalina, 2009, p. 243). In addition, social constructivism allows learners to “actively construct knowledge in a social context” which creates an optimal learning environment (Hirtle, 1996, p. 91).

Collaborative-learning theory fits under the idea of social constructivism as learners work in a social setting and learn from the experiences that others bring to the group (Powell & Kalina, 2009). Nyikos and Hashimoto (1997) add that “students can provide peers with new information and ways of thinking so that all parties can create new means of understanding” (p. 507). Learner-centered ideology also fits under the idea of social constructivism as learners construct knowledge based on their experiences and interactions with social and physical environments (Schiro, 2012).

Shakenova (2016) points out that “collaboration is defined as shared values, decision making about teaching practice and interaction between teachers, which promotes students’ performance and the professional development of staff” (p. 35). Based on this definition teacher collaboration theory provides the framework to support the ideas that co-teaching embodies. Co-teaching utilizes the strengths of the general and special education teachers to have a greater impact on the students. Cook and Friend (1995) provide a widely accepted definition of co-teaching as “two or more professionals delivering substantive instruction to a diverse, or blended, group of students in a single physical space” (p. 2). Teacher collaboration has been recognized as a successful means of strengthening teacher professional development and improving student achievement (Moolenaar, 2012).

In addition, learner-centered ideology will be used as it addresses meeting the needs of individual students when creating the curriculum (Schiro, 2013). Learner-centered ideology has been influenced by theorists such as John Dewey (1938), Jean Piaget (1957), and Lev Vygotsky (1978), who all contributed to the constructivist theory which focuses on how students learn (Airasian & Walsh, 1997; Milbrandt et al., 2004; Phillips, 1995). Learner-centered teachers focus on the needs of the students and work at “providing supportive relationships in the classroom and creating space that feels safe and trusting to student learners” (Moate & Cox, 2015, p. 382). Co-teaching fits within the learner-centered ideology as both teachers work at creating supportive relationships with all students and they strive to create a safe learning environment for students who may struggle in a traditional classroom.

There were two main goals for this action research study. The first goal was to determine the strengths and weaknesses and co-teachers’ levels of comfort and knowledge with the current co-teaching method of instruction. This would help determine what concepts should be addressed and taught to equip co-teachers so they could become the most productive and impactful co-teaching teachers possible. The second goal was to gain feedback and insight from teachers as they worked in a professional learning community (PLC), which informed their co-teaching professional development experiences. The research questions addressed in this study follow:

1. What are the current levels of comfort and knowledge of co-teachers using the present co-teaching method of instruction?
2. What professional learning is critical in preparing teachers to implement co-teaching successfully?

3. What steps need to be taken to successfully prepare co-teachers to implement co-teaching?

The overall goal is for administrators and teachers to collaborate in refining the co-teaching model and associated professional development plan to better prepare teachers to successfully implement the co-teaching model of instruction.

The following topics and concepts will be addressed in this chapter. The research design will explain the context and setting of the study and description of the constructs and when and how they were investigated. Participants will be described in detail with information on their teaching and co-teaching experience, gender, and ethnicity. Justification for the selection of the participants will also be provided. Data collection, measures, and tools used to collect data will be described in detail along with samples of these instruments that will be in the appendix. The research procedure will be thoroughly discussed providing details on how this mix-methods study was conducted along with how participants' identities were protected. A description of the data analysis will include how the data was analyzed and the method of coding that data. Finally, the chapter will conclude with a summary of the research design and methods.

### **Research Design and Intervention**

This research study was a mix-methods action research study with a grounded theory design. A mix-method study allowed for the collection of quantitative and qualitative data to develop a rich data set that individually neither method would be able to provide. Noyes et al. (2019) mentions that “there is a greater recognition that both quantitative and qualitative evidence can be combined in a mixed-method synthesis and that this can be helpful in understanding how complexity impacts on interventions” (p. 1).

Furthermore, Kajamma et al. (2020) states “mixed-methods research is well placed to investigate complex phenomena and situations, and can provide researchers with more nuanced understanding of certain phenomena than the use of single methods” (p. 268).

Overall, the research design will be built around a grounded theory methodology. Merriam and Tisdell (2016) point out that “the investigator as the primary instrument of data collection and analysis” is a major characteristic of grounded theory; furthermore, “grounded theory is particularly useful for addressing questions about process; that is, how something changes over time” (p. 31-32). The problem of practice in this study was that the current co-teaching model is inadequate in meeting teacher (and therefore student) needs.

This action research study was conducted at NHS, a high school located in a rural community in the Upstate of South Carolina. Based on the district database, the high school serves roughly 600 students with the following ethnicity breakdown: 88% White, 4% African American, 7% Hispanic/Latino, and 1% Asian. Students come from varying socio-economic backgrounds ranging from upper class to lower class, with a majority being the middle class. Approximately 40% of the students qualify for free and reduced meals.

### **Participants**

The main participants in the study were the co-teaching teachers at NHS who worked with me. The sample was a purposeful sample because this allowed me to “discover, understand, and gain insight and therefore [I] must select a sample from which the most can be learned” (Merriam et al., 2016, p. 96). In addition, the sample could be considered a convenience sample, as it is based on location. Merriam et al. (2016) point

out that making a sample selection based on convenience alone “is not very credible and is likely to produce “information-poor” rather than information-rich cases” (p. 98).

Therefore, the sampling will be purposeful and convenient. Furthermore, the co-teachers and I were the primary sources of data collection for the qualitative and quantitative data. They completed the surveys (qualitative and quantitative data) and I kept a field notes log (qualitative data) during PLC meetings to record data that was not picked up from the audio records of the PLC meetings.

Participants were asked if they would be interested in voluntarily participating in an action research study. There were two special education teachers and seven general education teachers who participated in the study. Of the nine participants, six were female and three were male and all were White. Mrs. Green and Mr. Orange are both special education teachers and both have been teaching for over 10 years. Mr. Red, Mrs. Grey, and Mr. Black are all math teachers. Mr. Black has been teaching for eight years, while Mr. Red and Mrs. Grey each have over twenty years of teaching experience. Mrs. Purple, Mrs. Yellow, Mrs. Brown, and Mrs. Blue all teach English. Mrs. Brown has seven years of teaching experience, Mrs. Purple and Mrs. Yellow each have 10 years of teaching experience, and Mrs. Blue has almost thirty years of teaching experience. Overall, all the teachers have at least three years of experience with co-teaching. Mr. Orange and Mrs. Green both have over 10 years of co-teaching experience.

Due to my role as principal, I understood that teachers might feel pressured to participate in the study. Consequently, I reassured them that their participation was strictly voluntary and that their comments, suggestions, or complaints would not impact our relationship as administrator and teachers. I also emphasized how this study could

potentially empower them to improve the current co-teaching program at NHS through collaboration with the administration and other co-teaching teachers by developing a plan to better prepare teachers to successfully implement the co-teaching model of instruction.

As the researcher, I worked very closely with the general and special education teachers to conduct the best possible study. As the principal of NHS, I assured the co-teaching teachers that all qualitative and quantitative data collected during the study will be protected. This includes, but is not limited to, not using teacher names, and not allowing other participants, teachers, and administrators to see or read any of the information gathered. Furthermore, I have reassured the co-teaching teachers that they are working with me in a participant/researcher relationship and not a teacher/principal relationship.

### **Data Collection Measures, Instruments, and Tools**

Data was collected using a teacher survey to gauge teacher comfort, knowledge, and needs concerning co-teaching. Data collected from the survey was used to guide professional development in the form of a PLC. The PLC met three times based on the number of strategies and concepts identified in the initial questionnaire results. Through this collaboration, the PLC sought to develop an adequate co-teaching model of instruction to implement for current and future co-teachers at NHS. After the PLC met and refined the co-teaching instructional method teachers completed an exit survey to better understand the impact of the PLC. These data collection tools are discussed in detail below.

The study began with the pre-Co-teaching Teacher Survey, which helped establish a better understanding of how comfortable and knowledgeable the teachers were using the

co-teaching instructional method. The survey was research designed and careful consideration was given to each item to gather the most accurate data on the perception and feelings of the co-teachers. Likert scale items gathered information about the participants' comfort and knowledge level with co-teaching. The open-ended responses gathered information on what participants feel they needed to successfully utilize the co-teaching method of instruction, and what training they have previously had, and what they believe are the strengths and weaknesses of co-teaching (see Appendix A).

The survey results were analyzed to determine common strengths, weaknesses, and concerns of co-teaching at NHS. The use of Google Forms automatically created pie charts for the Likert scale statements based on the co-teachers' responses. These charts along with the co-teachers' responses to the free-response questions were presented orally during the first PLC meeting. In addition, the analysis of the co-teaching teacher survey helped determine common talking points, strengths, and needs that guided the development of the professional development for the PLC. The PLC meetings lasted for approximately an hour each time. The structure of the meeting started with me offering a brief overview of what we were discussing and what we had talked about during the previous PLC meeting. During the meetings I reminded the co-teachers that we were all equals during the meeting and they did not need to see me as their principal, but instead as an equal in attempting to create a more sustainable co-teaching program.

The first PLC meeting was an introduction meeting that informed participants of the results of the Pre-co-teaching Teacher Survey. The topics of the first meeting included the co-teachers' comfort level and need for co-teaching training, the support of



the administration, and a description of each co-teacher's co-teaching experience at NHS. The co-teachers were asked to think about what co-teaching approach they were most comfortable with and what it would take for them to try different co-teaching approaches. The meeting concluded with each co-teacher receiving a copy of Friend and Cook's Six Approaches of Co-teaching (see Appendix C).

The second co-teaching PLC focused on the co-teaching approaches used by the co-teachers, what approaches they had tried in the past, and what concepts worked or did not work. The purpose of this meeting was to have co-teachers vocalize what approaches they have used. Many of the co-teachers had actually used co-teaching approaches that they did not realize were co-teaching approaches. The meeting concluded with co-teachers talking about the amount of planning time needed to prepare a solid co-teaching lesson plan but that it was worth the time as students learning and achievement were positively impacted. I told co-teachers they would receive an email from me with a list of questions to discuss for our final PLC meeting.

The final PLC focused on a list of concepts and questions for the co-teachers to consider before our meeting. The concepts and questions included strengths of our co-teaching approach, needed improvements, specifically needed training, needed administrative help and/or support, and thoughts and comments they wanted to share. The purpose of the meeting was to create a list of next steps based on the answers the co-teachers provided. The meeting started as expected but quickly changed focus as the co-teachers voiced their opinions and concerns for the future of co-teaching based on the recent decisions from district administration.

The overall goal for the PLC meetings is to develop an adequate co-teaching model of instruction that current and future co-teachers could use to positively impact their students. This occurred during the PLC meetings as the participants discussed concepts that were working and what non-negotiables should be included in the framework of the co-teaching program. This step required honest and open discussions between the participants and me about what the teachers believed were the most important resources and support they needed to be successful at implementing co-teaching.

I kept field notes of my observations of the PLC professional development. Observations can be very rich sources of qualitative data because “observations take place in the setting where the phenomenon of interest naturally occurs [and] observational data represent[s] a firsthand encounter with the phenomenon of interest rather than a secondhand account” (Merriam et al., 2016, p. 137). The observational data was recorded in my field notes and is a non-judgmental account of what was observed in the PLC meetings. The observations will focus on the interactions and body language of the general education teacher and special education teacher during the PLC meetings. In addition, this will ensure that all participant’s voices and ideas are heard and truly considered by the PLC.

Observations of co-taught lessons were also conducted in an attempt to see the co-taught methods, discussed during the PLC meetings, in practice in the co-taught classroom. Multiple observations were conducted for each teacher and lasted approximately 25-30 minutes. The observations could last longer depending on what was happening in the co-taught classroom. During the observations I took non-judgmental

notes on the co-teacher’s actions, questions, interactions with students, and interactions with each other.

After the last PLC meeting, an exit survey was given to the co-teaching teachers. This exit survey sought to capture the teachers feeling, beliefs, needs, and satisfaction with their experience developing a co-teaching program. Like the co-teaching questionnaire at the beginning of the study the exit survey consisted of a Likert scale and open-ended items and participant responses. The Likert scale items gathered data on the participant’s comfort and knowledge of co-teaching after completing the PLC. The open-ended response items gathered data on how valuable the training was, whether the participants felt like a co-teaching expert and why or why not they felt this way, and what information and/or training the participants believed still needs to be addressed (see Appendix B).

**Table 3.1** *Data Collection Phases*

Phase	Purpose	Data Source	Research Question	Instruments	Constructs Addressed
1	Data collected to develop PLC curriculum	Co-Teaching Teachers	RQ 1	Pre-Co-Teaching Teacher Survey	The questionnaire responses will be used to identify the strengths and areas of concerns the participants have with co-teaching.
2	Data collected to continue to improve PLC curriculum	Co-Teaching Teachers	RQ 2	Observations of PLC meetings and field notes	The data collected will be used to adjust the PLC curriculum to better serve the co-teachers.
3	Data collected to determine success and areas of growth for PLC	Co-Teaching Teachers	RQ 3	Post-Co-Teaching Teacher Survey	The questionnaire responses will be used to identify the success and areas of improvement of the PLC.

## **Research Procedure**

This mixed-methods action research study began by having teachers complete a researcher-developed pre-co-teaching questionnaire. The questionnaire was a Google Form which was a mixture of Likert scale and open-ended items and participants' responses were anonymously collected. The Google Form was emailed to participants. In addition, Google Forms had a function that will automatically collect participant responses in a Google Sheet and create pie and bar graphs of responses when applicable (Gavin, 2019). Finally, the Google Form allowed the creator of the form to collect responses without gathering the participant's name and email thus guaranteeing anonymity. Participants were given a week to complete the survey.

The participant's responses were summarized to determine the self-identified strengths of the general education or special education teachers. Their responses are displayed graphically when applicable. During the first PLC meeting, I presented the common strengths identified from the co-teaching questionnaire. The PLC members used these strengths to develop the PLC professional development topics which we discussed in detail at later PLC meetings. Furthermore, the data was used to help identify areas of struggle concerning co-teaching. These areas of struggle were also presented to the PLC members during the first meeting to develop a plan on how these areas of struggle would be addressed during the PLCs.

After the data was analyzed for professional development topics the PLC portion of the action research study began. The arrangement of the topics for the PLC were based on the number of responses from the Pre-co-teaching survey. For example, if co-teaching grouping was identified as an area of concern more times than co-teaching activities the

PLC professional development would begin with co-teaching grouping and then move to cover co-teaching activities.

Co-teachers implemented the knowledge and strategies gained during the PLC to hone their co-teaching instructional approach. After a two-week period, the PLC met again and discussed what concepts and strategies worked and what concepts and strategies needed improvement. The PLC refined and re-worked what co-teaching should look like in their classrooms and at NHS. They then implemented the refined and re-worked concepts and strategies of co-teaching. This process of PLC professional development, implementation, and refining, and re-working will go through three rounds for the co-teaching teachers to develop a co-teaching program that would be beneficial to students and teachers.

The post-co-teaching teacher survey attempted to gather data on the success of the professional development PLCs. The survey was a Google Form which was a mixture of Likert scale and open-ended items and participants' responses were anonymously collected. Finally, the Google Form allowed the creator of the form to collect responses without gathering the participant's name and email thus guaranteeing anonymity. Participants will be given a week to complete the survey. Participants were asked free-response questions to share their thoughts on how valuable the experience was, whether they feel like a co-teaching expert, and what if anything was left out or could be improved upon. The data collected from the exit survey was analyzed and collated and was used to determine common themes of success and what still needed to occur for co-teaching to be successful at NHS. This data could be used to help develop future

professional development opportunities, future PLCs, and/or a plan to ensure that the co-teaching model is continuously updated.

I kept a researcher's journal in which I documented the professional development PLCs. During the professional development PLCs, I documented the dialogue between the teachers along with reoccurring concepts which helped guide future PLCs. Also, I audio recorded the meetings so that I could analyze later everything that was said and possibly what nonverbal interactions participants made.

### **Data Analysis, Treatment, and Processing**

According to Merriam et al. (2016), "Data analysis is the most difficult part of the entire process" of the research study and it means "making sense out of data involves consolidating, reducing, and interpreting what people have said and what the researcher has seen and read - it is a process of making meaning" (p. 201-202). Data analysis for the research questions will be discussed below.

#### **Research Question #1**

To answer the research question of what the current levels of comfort and knowledge of co-teachers are using the present co-teaching method of instruction, quantitative data will be examined. Quantitative data collected from the Likert scale section of the Pre-co-teaching Teacher Survey was analyzed to determine what common trends, concerns, and strengths exist to give focus and clarity to the professional development PLC. In addition, the concepts teachers identified as needing to be successful at co-teaching were also incorporated into the professional development PLCs.

#### **Research Question #2**

To answer the research question what professional learning is critical in preparing co-teachers to implement co-teaching successfully qualitative and quantitative data will be examined. The exit survey that teachers completed at the end of the professional development PLC was analyzed to determine how successful the co-teachers feel with co-teaching. Common trends among the teacher responses could be seen as areas of success, while areas that teachers do not feel strong in could be areas of future focus with the professional development PLC.

### **Research Question #3**

To answer the question what steps need to be taken to successfully prepare co-teachers to implement co-teaching qualitative and quantitative data will be examined. Data collected from the Post-co-teaching Teacher Survey was used to determine what are the next best steps for the co-teaching program at NHS. In addition, notes taken from the PLC meetings helped determine what co-teachers needed to be successful.

Throughout the research process, I used coding to keep track of the data, using a color-coding scheme based on the relevant concepts that emerged during the data analysis and the theoretical framework (Merriam et al., 2016). Open coding and analytical coding were used during the process. Open coding was used early in the process as I was open to any possible concept that was revealed from the data (Merriam et al., 2016). I used analytical coding later when the open codes were grouped and constructed categories and themes based on the coding from the data collection. When possible, all observations and PLCs were transcribed to have the most accurate account of what was said and/or occurred. This allowed me to go back and examine the transcripts to possibly construct

questions that could yield a piece of deeper information or understanding and questions that provided further clarification.

Furthermore, transcribing the PLC meetings allowed me “another means of generating insights and hunches about what is going on in [my] data” (Merriam et al., 2016, p. 200). Finally, I used file folders based on color coding and analysis of data, which Merriam et al. (2016) suggest “creating file folders, each labeled with a category name” is one way to organize data, in addition, the data will be color-coded and cut out and placed in the corresponding file folder (p. 209). This method of data organization made the most sense as I liked to have physical copies of the data that I added notes and thoughts to as I analyzed it which proved difficult to do with the data in a digital format.

Lastly, the protection of participants was a top priority during the entire study and pseudonyms were used throughout the research paper. Also, survey data was taken anonymously so participants could answer honestly and without fear of ramifications based on their answers. Whenever necessary teachers’ names were removed from any document that was included in the research paper. In addition, I gained permission for involvement in the study and teachers were informed as much as possible about the study. The biggest concern I had is that my position as the principal of NHS would have an impact on the information that the teachers reported in their surveys. Furthermore, I believed that my presence during the PLCs may have caused some participants to behave and/or act differently than they normally would.

### **Validity and Reliability**

To conduct a research study that ensures validity and reliability, the investigation must be conducted in an ethical manner (Merriam et al., 2016). This would be



accomplished by designing a study in which participants remained anonymous and protected by ensuring aspects mentioned in the research paper would not easily identify the participants. Triangulation was used to “shore up the internal validity” of the study which was accomplished by using “multiple methods, multiple sources of data [and] multiple theories to confirm emerging findings” (Merriam et al., 2016, p. 244). Overall, the teachers that participated in the study were be treated professionally and in an ethical manner. I did not use my position as the principal to influence them in any way and reassured them throughout the action research study that their honesty would have no impact on them as a teacher or on the relationship we have inside or outside of the study.

### **Summary**

In summary, this study examined what teachers believed they needed to be successful at co-teaching. A mixed-methods action research study was conducted with a grounded theory design. A mixed-method study is preferred because the quantitative and qualitative data collected will allow for a rich description supported by numerical data of how the co-teachers felt about co-teaching. A grounded theory design was appropriate because I was focusing on building a theory of what teachers believe they needed to be successful at the co-teaching instructional methods. As Merriam et al. (2016) mention this theory is more “substantive” than “grand” because “substantive theory has a specificity and hence usefulness to practice often lacking in theories that cover more global concerns” (p. 31-32). An overview of the instruments used to collect data was provided along with how the data collected would be analyzed to answer the research questions. Also, the setting and participants of the study were discussed along with how their identity would be protected and an ethical study conducted.

The final two chapters discuss in detail the findings and a summary of the research. Chapter Four focuses on the results and findings of this action research study and provides a detailed summary of the findings. Chapter Five concludes this dissertation with a summary of the research process. In addition, conclusions and recommendations based on the findings of this action research study will be included.

## **Chapter 4**

### **Action Research Study Results and Findings**

The varying levels of comfort and knowledge of implementing co-teaching for the co-teachers at Northwood High School (NHS) impacted the ability of the co-teachers to effectively teach all students in co-taught classes. A mixed-methods action research study was needed to help determine what support and professional development co-teachers needed. The experience of the co-teachers at NHS ranged from seven to almost 30 years. In addition, the co-teaching training these teachers had received varied from very little to training from co-teaching expert Marilyn Friend.

The theoretical framework for this study was based on the ideas of collaborative learning theory (Lew, 2020, Lortie, 1975; Shakenova, 2017) and learner-centered ideology (Schiro, 2012). The data collected and discussed later was analyzed through the lens of collaborative learning theory as the professional learning community (PLC) was a collaborative effort between all the co-teachers. “Collaboration is the act of coconstructing knowledge, coming together with a clear understanding of how and why we are working together” (Jordan & Kaplan, 2014, p. 30). In addition, learner-centered ideology was used to help ensure that students also benefited from the collaborative efforts of the co-teachers. “When teachers can collaborate with other teachers, they can better serve their students” (Collier, 2013, p. 12). Taken together, collaborative learning and learner-centered theories provided a suitable lens to analyze the data collected.

Data was analyzed to determine what common themes emerged from teacher

input throughout the research process. In addition, color-coding was used to keep track of the different themes and the themes that kept reoccurring throughout the research process became the themes of focus for the data analysis. This approach helped determine which aspects of the professional learning were successful and which aspects needed refining. Also, the themes that emerged allowed us to develop our next steps to successfully prepare teachers to implement co-teaching.

This mixed-methods action research study sought to answer the following research questions:

1. What are the current levels of comfort and knowledge of co-teachers using the present co-teaching method of instruction?
2. What professional learning is critical in preparing teachers to implement co-teaching successfully?
3. What steps need to be taken to successfully prepare co-teachers to implement co-teaching?

The remainder of this chapter will discuss the data collected during the study. The data presentation and interpretation section will present the findings of the pre-and post-Co-teaching Teacher Survey along with notes from the PLC meetings. Next, the general findings and results will be discussed. An overview of the findings will be presented to create general interpretations of the data. Finally, a section devoted to the analysis of data based on the research questions will discuss what was found from my examination of the data. To conclude the chapter a summary will present a brief overview of the material presented and discussed in this chapter along with a transition to the final chapter of the dissertation.

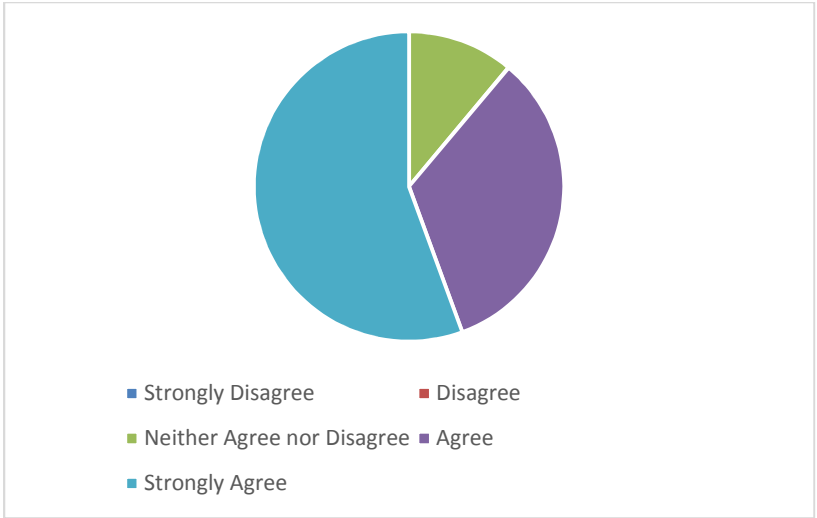
## **Data Presentation and Interpretation**

The use of PLC's is an important method of sharing knowledge among co-teachers. Jackson and Bruegmann (2009) state that "knowledgeable and skilled individuals increase the skill and knowledge of those with whom they interact, generating more ideas" (p. 86). The PLC provided such a forum for knowledgeable co-teachers to share their ideas with one another. It also offered opportunities to implement several tools to gather valuable data. Observations of the co-teachers were conducted during the study, but the data gathered during the observations did not add anything new information to the data collected during the surveys and PLC meetings. The only use of the data collected during the observations was for triangulation of the other data for validity and reliability. To best understand the data collected for this action research study the data is presented based on the type of data gathering instrument used to collect the data.

### **Pre-Co-teaching Teacher Survey**

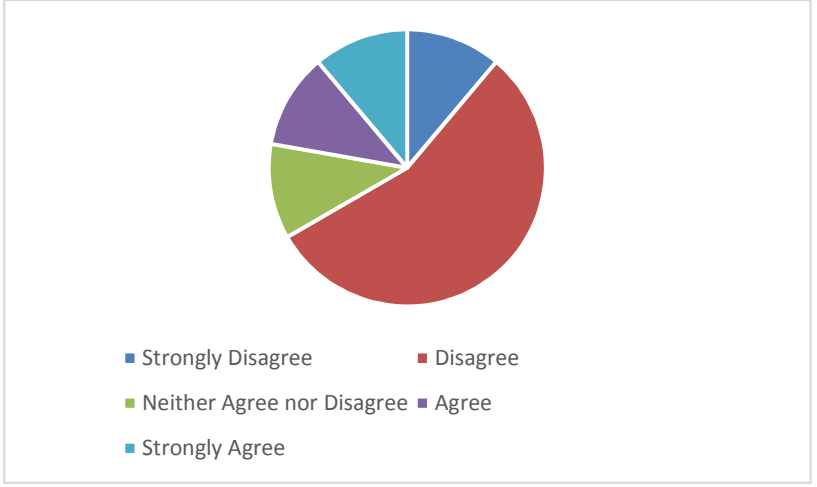
Each participant answered a pre-Co-teaching Teacher Survey, which consisted of ten Likert Scale statements and five free-response questions. A total of nine participants (seven general education and two special education teachers) completed the survey. This data was used to answer the following research question: *What are the current levels of comfort and knowledge of co-teachers using the present co-teaching method of instruction?*

A total of 88.8% of participants indicated they believed co-teaching can be beneficial for students (55.6% - *Strongly Agree* and 33.3% - *Agree*), while 11.1% *neither agreed nor disagreed* with the statement (See Figure 4.1).



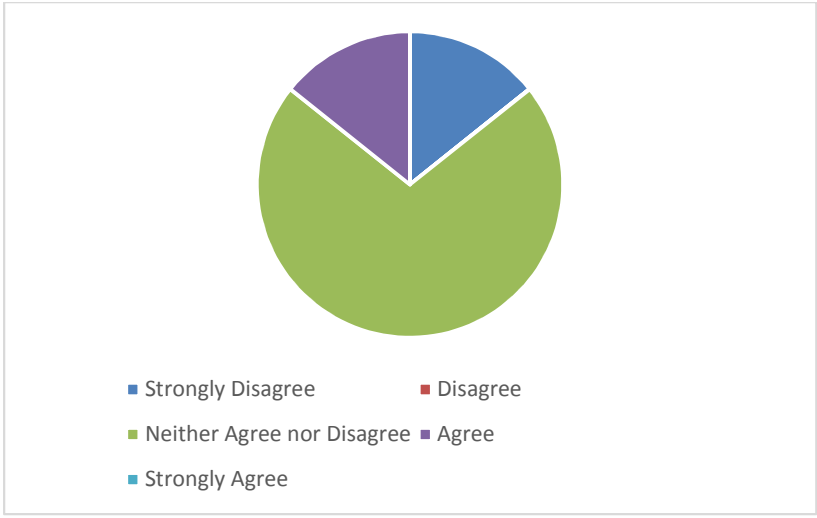
**Figure 4.1** *Count of Co-teaching can be beneficial for students*

In response to the statement, *I have been properly trained to implement co-teaching*, 55.6% of participants indicated they *disagreed*. The remaining four participants gave different responses varying from *Strongly Disagreed* to *Strongly Agreed* (See Figure 4.2).



**Figure 4.2** *Count of I have been properly trained to implement co-teaching*

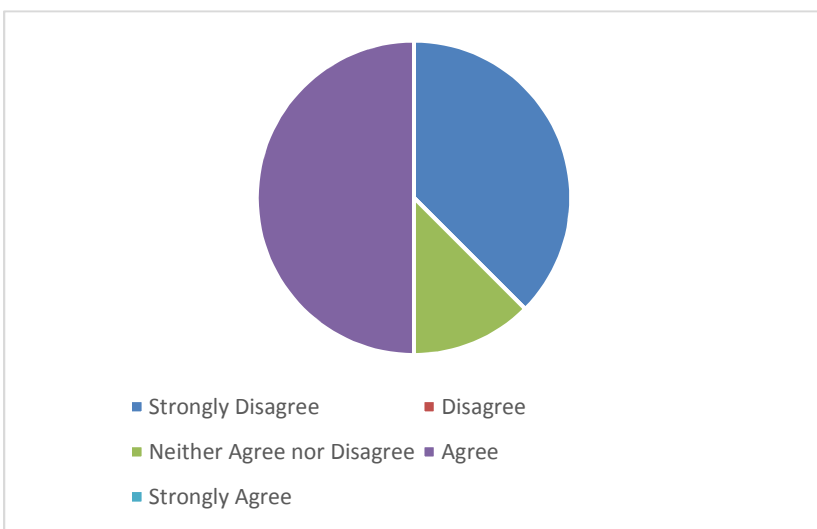
When considering the level of district office support for co-teaching, 55.6% indicated they *neither agreed nor disagreed* that the district office supports co-teaching, 33.3% indicated they *agreed* that the district office supported co-teaching, and 11.1% *strongly disagreed* that the district office supported co-teaching (See Figure 4.3).



**Figure 4.3** *Count of I feel the district office supports co-teaching*

For the statement *I feel my administration supports co-teaching*, 88.9% agreed, 55.6% agree, and 33.3% strongly agree (See Figure 4.4).

In addition to the Likert scale statements, co-teachers were able to respond to the following question: *How can the administration better support co-teaching?* The co-teacher’s responses revealed a range of ideas about how the administration could best



**Figure 4.4** *Count of I feel my administration supports co-teaching*

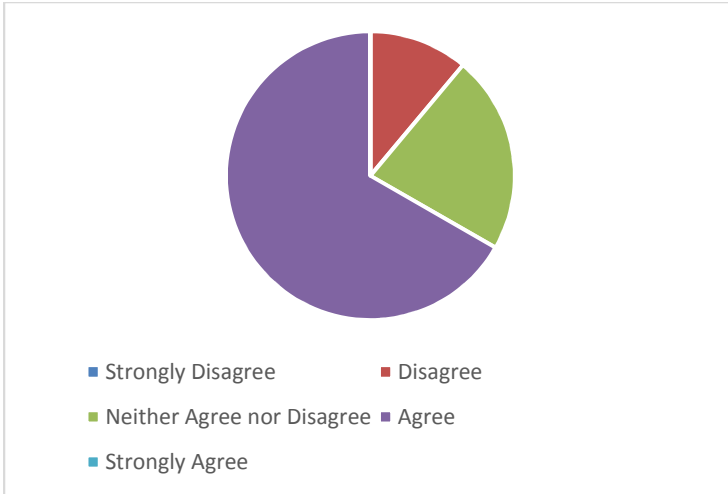
support co-teaching at NHS. One co-teacher stated, “Administration can better support co-teaching by providing a full-time co-teacher and have co-taught classes be smaller than average class size. These two things will better support teachers and students.”

The following statements from co-teachers supported the concepts of what co-teachers believe is needed from administrators to better support co-teaching at NHS.

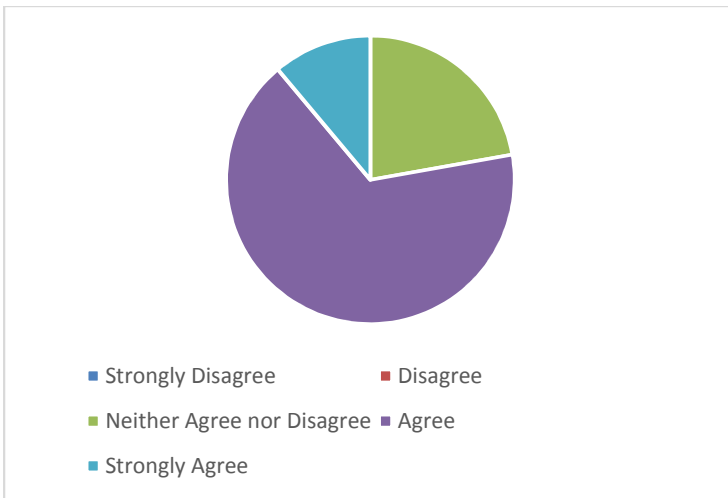
- “Co-teaching should be a priority. Time is the biggest thing you can give co-teachers. Time to plan and explore new options. Co-teaching should be the full block not split. Class sizes should not be big. Keeping teachers working together is a great plus.”
- “Some official training would help. Also, a consistent mutual planning time with the co-teacher would help.”
- “Communication with both teachers is essential in making a schedule and determining the enrollment for these classes. Decisions should be made based on the need and disabilities of the students.”

As a group, 66.7% of the co-teachers indicated that they planned co-taught lessons with their co-teacher (See Figure 4.5), and the same percentage of co-teachers reported they had time during the school day to plan co-teaching lessons (See Figure 4.6). For both Likert scale statements, 22.2% of the co-teachers responded they *neither agreed nor disagreed* with the statement. For the question *I plan co-teaching lessons with my co-teacher*, 11.1% of the co-teachers *disagreed* with this statement. Lastly, when considering planning, 11.1% of the co-teachers *strongly agreed* with the statement *I have time during the school day to plan co-teaching lessons*.



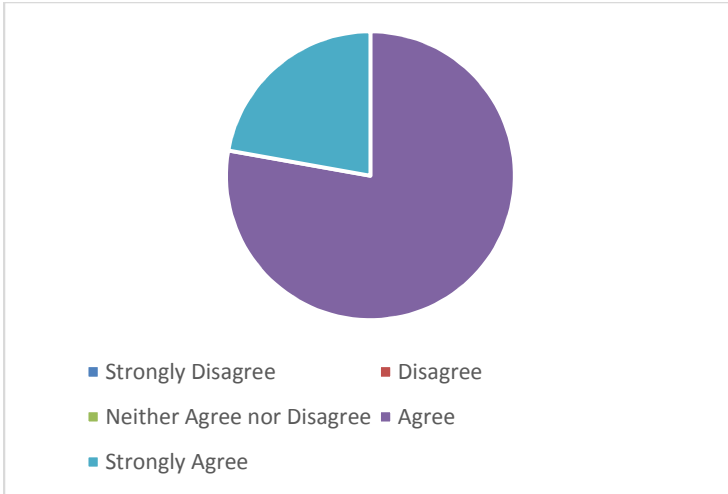


**Figure 4.5** *Count of I plan co-teaching lessons with my co-teacher*

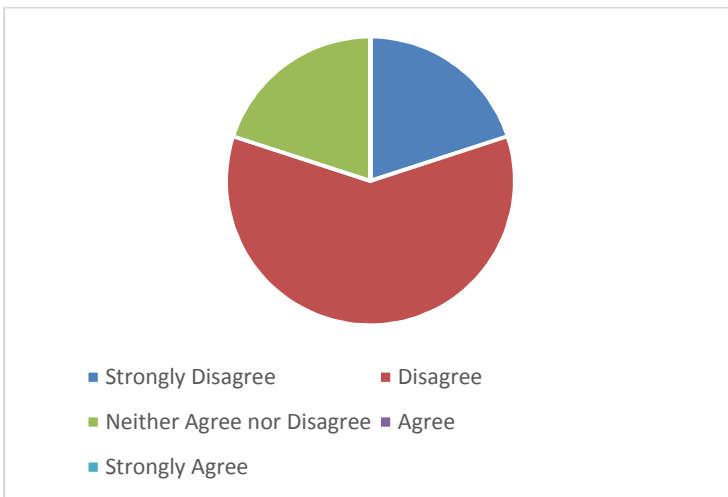


**Figure 4.6** *Count of I have time during the school day to plan co-teaching lessons*

When asked directly about their comfort level implementing co-teaching 77.8% agreed and 22.2% strongly agreed with the statement *I am comfortable implementing co-teaching* (See Figure 4.7). When asked the statement *I am uncomfortable implementing co-teaching* 11.1% neither agreed nor disagreed, 66.7% disagreed, and 22.2% strongly disagreed (See Figure 4.8).

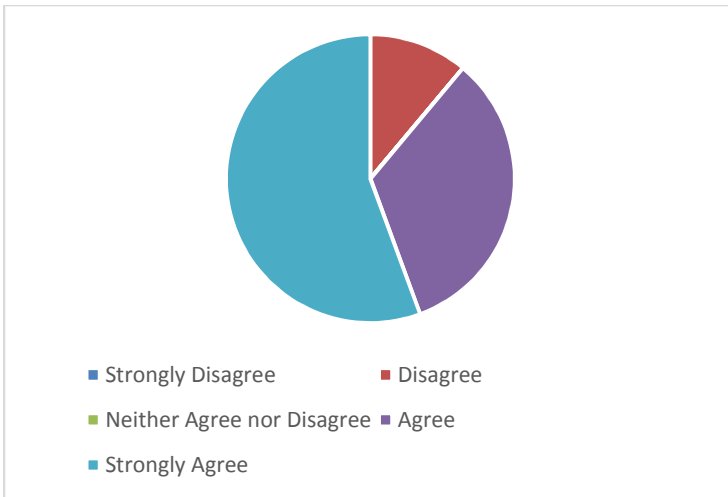


**Figure 4.7** *Count of I am comfortable implementing co-teaching*

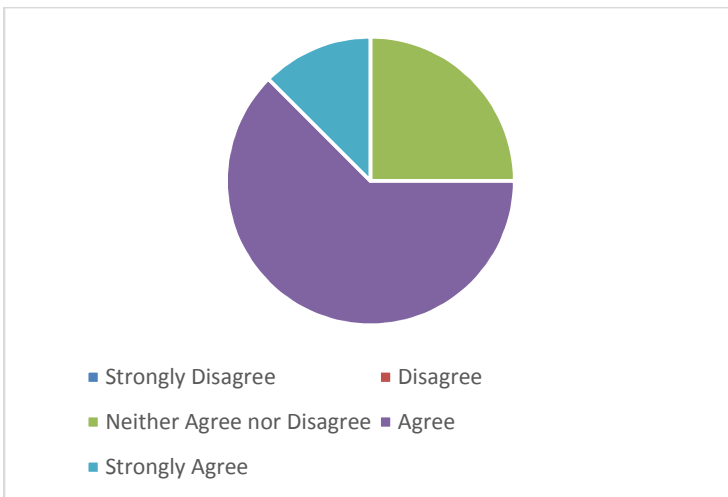


**Figure 4.8** *Count of I am comfortable implementing co-teaching*

The Likert scale statements concluded with two different statements unrelated to the previous statements. The first statement, *I work with the same co-teacher each year*, had the following responses: 55.6% *strongly agreed*, 33.3% *agreed*, and 11.1% *disagreed* (See Figure 4.9). The second statement, *I would like to learn more about implementing co-teaching* had the following responses: 11.1% *strongly agreed*, 55.6% *agreed*, and 33.3% *neither agreed nor disagreed* (See Figure 4.10).



**Figure 4.9** *Count of I work with the same co-teacher each year*



**Figure 4.10** *Count of I would like to learn more about implementing co-teaching*

The remainder of the data collected from the pre-Co-teaching Teacher Survey was used to create a starting point for the PLCs that would help create a co-teaching model of instruction that could benefit co-teachers and students. The free response item *describe what you need to be more comfortable implementing co-teaching* produced several different responses. Three of the co-teachers specifically mentioned the need for training to help them feel more comfortable implementing co-teaching. Each desired advanced training that covered topics such as the different co-teaching models and/or improving the

relationship between the general and special education teachers. Other concepts mentioned to increase comfort implementing co-teachers include keeping up with current trends in co-teaching, smaller class size, clear expectations, and purchase of instructional resources.

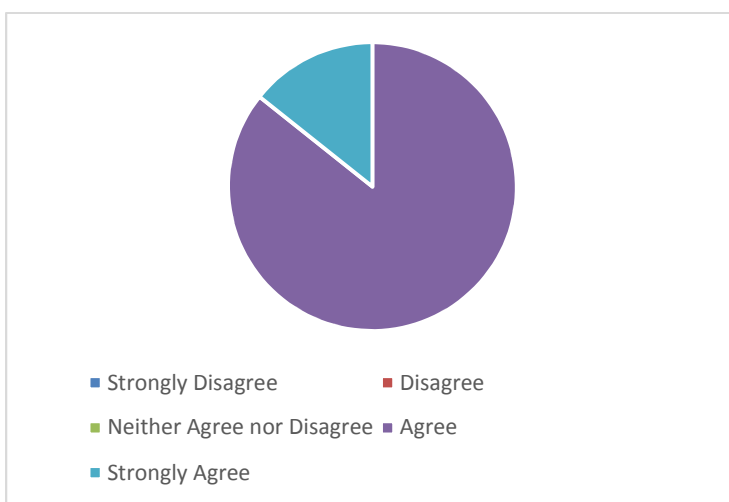
The survey ended with the following two statements: *describe your co-teaching experience at Northwood High School* and *please describe anything else that you would be beneficial for the study*. A majority of the respondents stated their co-teaching experience had been a positive one and they had come to enjoy working with their follow co-teacher. For example, one participant remarked, the combination of the “standards expert,” general education teacher, and the “processes expert,” special education teacher, make a classroom where all can learn.” In addition, they stated that their students had come to enjoy and accept co-teaching and the idea of having a second teacher in the classroom. One area of concern mentioned was finding time to plan together. One co-teacher said, “Co-teaching classes also require extra supplies. Two lessons can often be happening at the same time,” and time is needed to discuss who is going to provide which supplies and what material will be covered while multiple lessons happen. Other concerns mentioned included special education teachers being pulled from the classroom due to Individual Education Plan (IEP) meetings and developing the relationship between the general and special education teacher. One co-teacher expressed the concept of “universal accommodations” that could benefit the study and all co-teachers “I think it might be interesting to look at what “universal accommodations” we are using in co-taught classrooms.” This would allow the co-teachers to better understand which

accommodations work best for the students. For the most part, the co-teachers did not have any concepts to add for the benefit of the study.

In addition to the pre-Co-teaching Teacher Survey, the PLC meetings were recorded, and notes were gathered from the recordings to gather qualitative data to help determine the focus of the PLC meetings. The data gathered during these meetings was analyzed to determine which themes emerged. Themes were colors coded to provide a quick visual of which themes continued to appear throughout the research process.

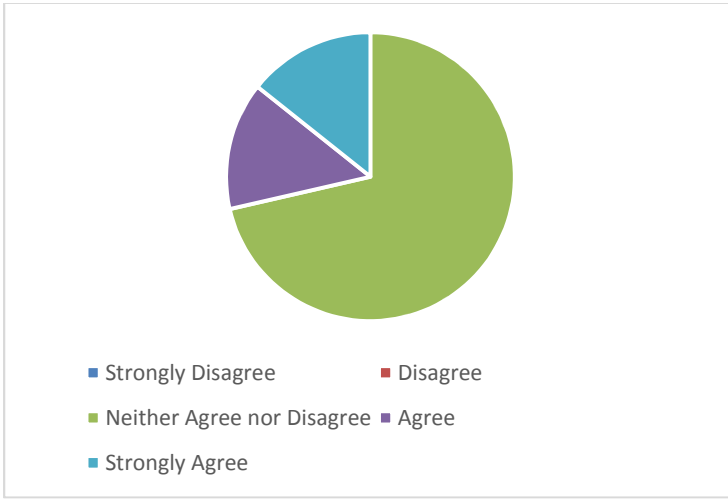
### **Post-Co-teaching Teacher Survey**

To address the third research question, *What steps need to be taken to successfully prepare co-teachers to implement co-teaching?* co-teachers completed a post-Co-teaching Teacher Survey. The post-survey consisted of 5 Likert scale statements and 5 free response questions and statements. A total of 8 of the original 9 co-teaching participants completed the post-Co-teaching Teacher Survey. For the *statement I feel comfortable implementing co-teaching in my classroom* 85.7% agreed and 14.3% strongly agreed with this statement (Figure 4.11).

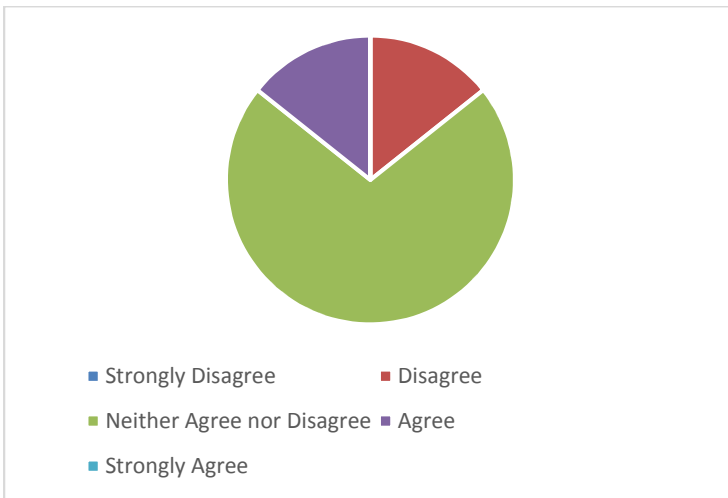


**Figure 4.11** *Count of I feel comfortable implementing co-teaching in my classroom*

When responding to the statement *The co-teaching training was beneficial* the co-teachers responded with 71.4% *neither agreed nor disagreed*, 14.3% *agreed*, and 14.3% *strongly disagreed* (See Figure 4.12). Similarly, the co-teachers responded 71.4% *neither agreed nor disagreed*, 14.3% *agreed*, and 14.3% *disagreed* with the statement *the co-teaching training was not beneficial* (See Figure 4.13).



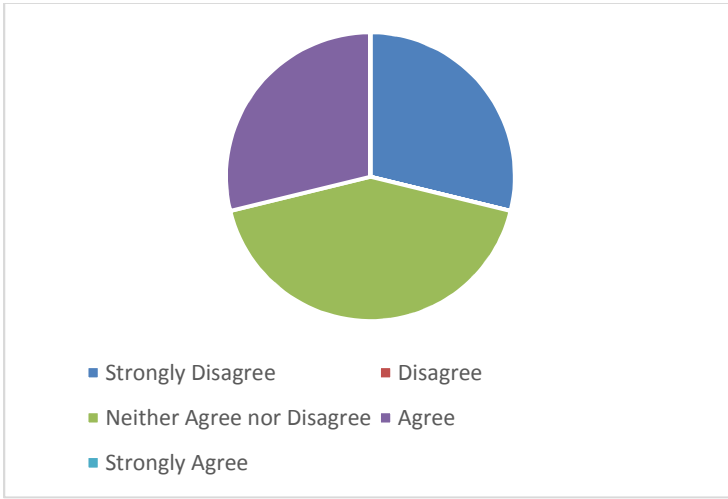
**Figure 4.12** *Count of the co-teaching training was beneficial*



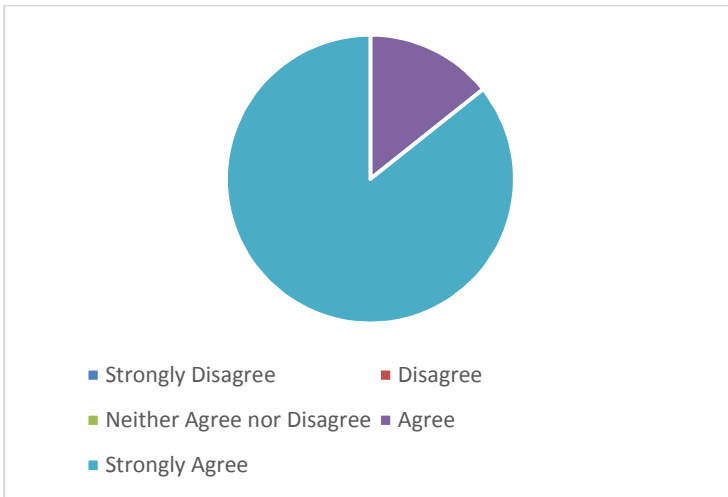
**Figure 4.13** *Count of the co-teaching training was not beneficial*

The final two Likert scale statements asked the co-teachers *I believe that co-teaching will improve at Northwood High School* (See Figure 4.14) and *I plan to continue*

to improve at co-teaching (Figure 4.15). The co-teachers responded that 42.9% *neither agreed nor disagreed*, 28.6% *agreed*, and 28.6% *strongly disagreed* with the statement of co-teaching improving at Northwood High School. When asked if they planned to continue to improve at co-teaching 85.7% *agreed* and 14.3% *strongly agreed* with the statement.



**Figure 4.14** *Count of I believe that co-teaching will improve at NHS*



**Figure 4.15** *Count of I plan to continue to improve at co-teaching*

Examining the free response questions and statements revealed the following information. When asked about the most beneficial aspect of the training the co-teachers

mentioned the following: time to discuss the strengths and weaknesses of co-teaching, learning different co-teaching strategies, sharing our co-teaching ideas with others, and discussing co-teaching with other co-teachers. Considering the next steps of co-teaching at Northwood High School the co-teachers had the following comments: “make sure the sped teachers stay in the room the whole time”, “staff the special education department to enable full implementation”, and “continue to meet and discuss co-teaching.”

When asked about the least beneficial part of the training and any concerns that were not covered in the post-Co-teaching Teacher Survey the co-teachers responded very similar. Besides not applicable the two responses that came up a majority of the time were concerns over lack of staff to implement co-teaching and lack of support from the district office level for co-teaching. Overall, the co-teachers reported feeling comfortable to very comfortable about implementing co-teaching in their classrooms.

### **Field Notes**

The PLC meetings were recorded to make sure that nothing would be missed that could potentially benefit the study. In addition, field notes were collected during the PLC meetings to capture body language and other concepts that an audio recording would not pick up. The first step of analysis was transcribing the PLC recordings. This allowed for an exact record of what the co-teachers said about a particular topic being discussed. The next step was to review the transcribed records and field notes from the PLC meetings. A color-coding system was used to keep track of the different themes that developed. This allowed for quick analysis of the themes as the themes that appeared the most are the themes discussed below.



The first theme that emerged was the comfort of the co-teachers with the co-teaching method of instruction. As a group the teachers indicated they were comfortable implementing the co-teaching method of instruction. During the analysis of the field notes the co-teachers indicated over 20 times their comfort with implementing co-teaching. Mr. Red indicated that he was not comfortable implementing co-teaching when he first started but over time has become more comfortable implementing co-teaching approaches that benefit his students. In addition, several co-teachers would nod their head in agreement of what was being said when discussing their comfort of co-teaching as a group. As special education teachers, Mrs. Green and Mr. Orange talked about how they felt comfortable going into the general education teachers' classrooms as they have been able to develop strong professional relationships while working with their partnered general education teachers. Finally, Mrs. Yellow explained that she "need[s] more professional development to be more effective with co-teaching but [she] feels very comfortable implementing co-teaching" based on what concepts she knows. The teachers repeatedly described their comfort with co-teaching despite the lack of co-teaching professional development.

The next theme was the knowledge of the co-teachers. Many of the co-teachers developed their co-teaching knowledge through trial and error or by sharing with other co-teachers at NHS. For example, Mr. Orange had previously been involved in co-teaching professional development presented by Dr. Marilyn Friend, who is an "internationally recognized expert on co-teaching" (????). He has taken his knowledge of co-teaching and helped expand the knowledge of the co-teachers at NHS. Mrs. Purple described how she did not know anything about co-teaching when she started, but with

the help of Mrs. Green, her knowledge of co-teaching has grown. She remarked, “at first I had no knowledge of co-teaching” but over the semesters of “trying different methods we (Mrs. Green and Mrs. Purple) have expanded our collective knowledge of co-teaching.” When the data was analyzed, the co-teacher’s knowledge come up over 25 times. Every co-teacher, at some point during the PLC meetings, indicated they had a good working knowledge of co-teaching. Mrs. Blue summed up the groups knowledge level and desire to gain more knowledge during the second PLC meeting. She stated she did not want to speak for everyone but that “as a group I believe we have a great working knowledge of co-teaching, but we all desire to have a deeper knowledge level of co-teaching to better teach our students”.

Finally, the frustration of the co-teachers was the last theme that emerged from the field notes. The frustration level of the teachers was so much that the majority of the final PLC focused on them expressing their frustration of how co-teaching would look moving forward. Mrs. Grey expressed her frustration that all students regardless of their learning level should be given the best educational opportunity at NHS and for some of “our students their best chance of success is in a co-taught classroom.” Likewise, Mrs. Brown said that she did “a lot to make all her students feel like they are heard and supported” and not doing co-teaching “with fidelity will in the long run hurt the students.” The co-teachers were frustrated with the lack of administrative support from the district level concerned co-teaching. During the last PLC meeting I listened to their frustration and at times it felt like they were taking their frustration out on me. I reminded them that what they were saying would remain anonymous. Mrs. Green expressed that she felt that co-teaching was on a great track but that we had a “shaky future as it seems

that co-teaching does not appear to be important except to the current co-teachers”. Overall, the co-teachers were very frustrated about the future of co-teaching at NHS because they all felt that co-teaching could be very beneficial for students if it was given the proper support.

### **General Findings**

After collecting the data from the pre-Co-teaching Teacher Survey, post-Co-teaching Teacher Survey, field notes from PLC meetings, and recordings of PLC meetings a few different themes started to emerge. In general, several themes were identified during the data analysis. Color-coding was used to keep up with the different themes. In the end, three themes that emerged were comfort of co-teachers, knowledge of co-teachers, and frustration of co-teachers. Each theme will be discussed in full and backed by evidence collected during the study.

#### **Comfort of Co-teachers**

A theme that reoccurred consistently throughout the data was the comfort of the co-teachers at NHS. Co-teachers responded on the pre-Co-teaching Teacher Survey to the Likert scale statement “*I am comfortable implementing co-teaching*” with 77.8% *agreed* and 22.2% *strongly agreed*. Another way to consider this data is that nine of the nine co-teachers either *agreed* or *strongly agreed* with the statement. The post-Co-teacher Teaching Survey found similar results in that 85.7% *agreed* and 14.3% *strongly agreed*, which means that seven of the seven co-teachers who completed the survey feel comfortable implementing co-teaching. The number of co-teachers completing the Post-

co-teacher Teaching Survey was fewer than the Pre-co-teacher Teaching Survey because one of the participants did not complete the post survey.

One would like to believe that most of the co-teachers are somewhat comfortable with co-teaching as they have been co-teaching for at least six years. The data mentioned above does support this idea, but when I started digging deeper into the data the co-teachers expressed a desire to be more comfortable with co-teaching. In fact, the concept of the co-teachers' desire to be more comfortable was a talking point during our first PLC meeting. First, we discussed the fact that one data point indicated that co-teachers were comfortable with implementing co-teaching in their classrooms. Yet, another data point indicated that co-teachers needed several other concepts to be more comfortable with implementing co-teaching. As a group, the co-teachers indicated that they needed more training to improve the comfort level between the general and special education teachers. As one co-teacher described, "I would benefit from some actual training on co-teaching. I have only learned what to do based on experience in the classroom and trial and error." This concept of needing training to successfully implement co-teaching has already been mentioned and confirms the findings of previous studies on co-teaching. Friend et al. (2010) described in detail the need to provide high-quality professional development along with coaching and other supports that can improve teacher practice: "Although it seems obvious, the importance of teaching partners together participating in this professional development cannot be overemphasized" (Friend et al., 2010, p. 20).

The development of a true co-teaching relationship was another concept mentioned as important in becoming truly comfortable with co-teaching. One co-teacher mentioned, "I'm not uncomfortable with co-teaching. I am just uncomfortable letting Mr.

Orange teach the students when I am not there.” Developing the relationship between the general education and special education teacher is very important. Murawski and Hughes (2020) stress that “no level of collaboration can be successful without strong communication,” and they go on to say the “relationship between educators in an inclusive class has frequently been likened to a marriage” (p.188). This was on display during our PLC meetings as one pair of our general and special education teachers have worked together as co-teachers so long that they refer to each other as “work husband or wife.” Obviously, the development of this type of working relationship takes years to develop, but for co-teachers, it is the ultimate goal. As Mrs. Grey stated, “I know I can miss a day of work and our students (general and special education) will not get behind because Mr. Orange is there to teach them.” This one statement speaks volumes about the type of co-teaching relationship the two have developed over the years.

In addition to the general training that was mentioned earlier, an equal number of co-teachers also mentioned they desired advanced training in co-teaching. One co-teacher remarked in the pre-Co-teaching Teacher Survey that “some training helps. However, it needs to be more advanced training. I think all of us who work in a co-teaching situation understand what should happen. I think we need advanced models and goals, not the basics.” The most common form of co-teaching used by co-teachers, in general, is One Teach/One Assist (Keely, 2015). Friend et al. (2010) describe the One Teach/One Assist approach as “one teacher leads instruction while the other circulates among the students offering individual assistance” (p. 12). This is not to say that One Teach/One Assist is not effective, but there are times and places when certain co-teaching approaches work better than other approaches.

As a group, the co-teachers of NHS understand this concept and desire to gain the knowledge necessary to better know when to implement a specific co-teaching strategy which could result in better student achievement and understanding. In fact, several co-teachers responded in the pre-Co-teaching Teacher Survey that they kept themselves “up with the curriculum and what teachers are teaching.” Likewise, one co-teacher responded, “My co-teacher and I have read some research and done some investigation on our own, and we think we feel pretty comfortable with our strategies at this point.” Developing co-teachers beyond One Teach/One Assist is important as Keely (2015) discovered “students are not experiencing any of the student perceived benefits as indicated are present when other co-teaching models are incorporated” (p. 14).

The teachers of NHS are comfortable with the basics of co-teaching. Over the years pairs of co-teachers had taken it upon themselves without any support or urging from the administration to improve their co-teaching practice. Based on the pre-Co-teaching Teacher Survey the co-teachers desired the co-teaching knowledge needed to become better equipped to serve their students. The second theme that emerged from the data collected was the knowledge of the co-teachers.

### **Knowledge of Co-teachers**

Working in pairs, the co-teachers had taken it upon themselves to seek out the knowledge they needed to become stronger co-teachers. Based on the pre-Co-teaching Teacher Survey the co-teachers indicated that they were comfortable with co-teaching but desired more advanced co-teaching knowledge. The pairing of that concept and the lack of knowledge by most of the co-teachers of the different co-teaching approaches led to

our PLC meetings being focused on strengthening the co-teachers' knowledge of those different approaches.

During the first PLC meeting, co-teachers were presented with the data from the Pre-co-teaching Teacher Survey. The first meeting took place in the front office conference room at NHS around a large conference table and the co-teachers were cautious at first as they did not know what to expect. I did most of the talking as I presented the findings of the pre-Co-teaching Teacher Survey. None of the co-teachers really talked as they were not sure what to expect but I reminded them that during the PLC meetings I was not their principal but a researcher that was looking to help make them better co-teachers. I could see they understood but were still hesitant to open up and share. The data from the survey was presented in three broad categories, the first being better administrative support. Some of the concepts mentioned included, smaller class size, common planning with co-teachers, training, and special education teacher in the co-taught class the entire time. Second, the co-teachers indicated what they needed in order to be more comfortable with co-teaching, the major ones being clear expectations, training with co-teachers, implementation of feasible co-teaching strategies, and money set aside for instructional resources. Last, the category of their co-teaching experiences at NHS was discussed. This varied from teachers who had explored other co-teaching approaches to those who struggled because they have never received training or had very little support.

At the conclusion of the meeting, co-teachers were provided a handout by Friend et al. (2010) illustrating the six co-teaching approaches (Appendix C). In preparation for the next PLC meeting, I asked the co-teachers to read over the different co-teaching

approaches and to consider the different co-teaching approaches and think about the following questions: Where do you see yourself? Where would you like to see yourself? What would it take to move to or implement one of the other co-teaching approaches? Co-teachers were asked to come prepared to discuss, share, and model information and concepts that worked and did not work concerning the six co-teaching approaches.

The second PLC meeting differed greatly from the first PLC meeting because the teachers participated more by sharing ideas and discussing what worked and did not work in their classroom. As teachers entered the conference room, I could see that they were more confident walking in the room and hear them joking with one another. They were clearly comfortable coming to this PLC meeting as the cautious demeanor was gone. I started off with the broad question of “which co-teaching approach resonated most with you?” That simple question opened the flood gates of teacher conversation as each co-teacher shared their thoughts about different co-teaching approaches and helped each other see the benefits of the different approaches.

This meeting provided the opportunity for co-teachers to discuss and model any of the six co-teaching approaches presented in the Friend et al. (2010) handout from the previous meeting. One approach that was specifically mentioned during the PLC was the alternative teaching approach “in which one teacher works with most students while the other works with a small group for remediation, enrichment, assessment, preteaching, or another purpose” (Friend et al., 2010, p. 12). Mr. Red felt he was signaling out students who may struggle with or perform poorly on concepts when he used the alternative teaching approach. Mr. Orange, the special education teacher who works with Mrs. Red responded by saying, “You have to look at it as those four in the back are the ones that



made the *A*'s or *B*'s on the test. I take them or you take them and do some type of enrichment. While we reteach, review, or correct the test with the rest of the students.” Mr. Orange went on to say that it does not have to be the strugglers in the small group and that the key is to make the approach fit the needs of the students. Cook (2004) mentioned that the alternative teaching approach can vary in length and could last an entire period or a few minutes at the beginning or end of the lesson. In addition, for the approach to be successful the purpose of the small group should vary from the purpose of the larger group.

The parallel teaching approach was another co-teaching approach that was discussed during the second PLC meeting. Parallel teaching is when the “two teachers, each with half the class group, present the same material for the primary purpose of fostering instructional differentiation and increasing student participation” (Friend et al., 2010, p. 12). Mr. Orange explained to the group that parallel teaching occurs much more than most co-teachers realized. He reminded everyone that many times he or Mrs. Green, the other special education co-teacher, take students (special and general education) to an empty classroom to work with them. He went on to mention how parallel teaching in the same classroom can be difficult due to the co-teachers possibly talking over one another so their group of students can hear them. Cook (2004) mentioned that parallel teaching is useful when a lower adult-student ratio is needed, allows both co-teachers to have an active instructional role, and co-teachers can strategically divide students into the two groups. Mrs. Yellow, an English teacher, mentioned that having a space for students to go to with one of the co-teachers was very beneficial and added that the students even commented to her how much more they enjoyed the smaller groups instead of a whole

class approach to instruction. Mrs. Brown, an English teacher, also added that parallel teaching created an environment in which students had fewer distractions.

To conclude this PLC meeting the co-teachers discussed different methods of grouping students along with the challenges of planning co-taught lessons. Mrs. Yellow mentioned that many times in her class she would group students based on their behavior issues in order to help eliminate potential problems and class disruptions. Mrs. Brown, on the other hand, said that she groups students based on their ability levels. Students take a pre-test before starting a new unit to determine what they know and the concepts with which they struggle. The groups are based on the student's performance on the pre-test, and she explained that students are grouped either heterogeneously or homogeneously depending on the specific needs of the lesson. Finally, the co-teachers discussed some challenges they faced in planning co-teaching lessons. Mr. Red remarked that “it takes a lot of planning and preparation, but it pays off.”

Mrs. Yellow talked about how co-teaching can be unpredictable as you think you have planned everything out but forget about one concept that can change the entire lesson. Mr. Orange agreed with Mrs. Yellow and added that student absences really make lessons a challenge as a group can go from four students to two students if students are absent. Mrs. Brown concluded the meeting by saying that planning a different co-taught lesson each day would be difficult based on some of the issues already mentioned in addition to unforeseen issues like teacher absences, state testing, and assemblies.

### **Frustration of Co-teachers**

Despite the comfort and knowledge that the co-teachers at NHS discussed and exhibited during the co-teaching PLCs a theme of frustration did emerge, especially

during the final PLC meeting. The final meeting focused on strengths and weaknesses of the co-teaching approach of instruction along with what improvements. In addition, the co-teachers discussed what needed to happen to improve co-teaching at NHS.

As the co-teachers entered the conference room, I could feel the frustration that was just beneath the surface. We started by talking about the strengths and weaknesses of our co-teaching approach, but the discussion was very surface level. Everything about this PLC meeting shifted when Mrs. Grey asked, “What is co-teaching going to look like next year?” From that point on the entire meeting was about the co-teacher’s frustration with the future of co-teaching at NHS. The frustration was entirely focused on me as I was the one conducting the study even though the co-teacher assured me, they did not blame me for how co-teaching would look for the 2022-2023 school year. This frustration could be traced to the changes to co-teaching that would occur during the 2022-2023 school year based on losing one special education co-teacher. The biggest change is that Mrs. Green has accepted a job at another school and we did not have anyone apply to fill the teaching position. What this meant is that Mr. Orange would be teaching all of the co-teaching classes and would have to teach four classes each semester instead of the traditional three classes. Mrs. Brown voiced her concerns for Mr. Orange having to do four classes and how it would make for a long and exhausting school year. Mrs. Blue added that teaching four classes all year is not sustainable. In addition to losing one of the special education co-teachers many of the co-teachers were worried about the increase in students in their co-teaching classes. One teacher responded during the Post-co-teaching Teacher Survey that the least beneficial aspect of the training was knowing that moving

forward there would not be enough staff to continue to effectively implement co-teaching.

In addition, when asked in the Post-co-teaching Teacher Survey about the next steps for co-teaching at NHS six responses mentioned not having enough teachers to successfully implement co-teaching. The specific staffing that the co-teachers mentioned was another special education teacher to fully be able to implement co-teaching. Another teacher agreed with adding a special education teacher and explained that doing so would be beneficial for all students across the content areas. Finally, another co-teacher remarked that having enough special education teachers would allow all the co-teachers to follow and successfully implement co-teaching best practices.

Mrs. Yellow was the first to remark that the increase in numbers was a major concern going into the 2022-2023 school year. She added that the increase in numbers goes against a lot of the concepts that were discussed during the PLC meetings. Mrs. Grey went on to describe how lowering her class numbers during the second semester of the 2021-2022 school year was very beneficial for the students. During first semester there was only one co-taught Foundations of Algebra class with approximately 26 students. The co-teachers struggled to effectively teach every student due to the number of students and to make matters worse all these students were scheduled to be in Intermediate Algebra second semester. Mrs. Grey explained her concern to the administration of NHS and offered a solution of dividing the Intermediate Algebra class into two smaller classes. For the spring semester, two Intermediate classes were created and the students were specifically placed based on the co-teacher's recommendations. Mrs. Grey explained how the smaller class sizes helped improve student achievement

(only one special student did not pass the state test) and time co-teachers could spend with students.

The frustration expressed from the teachers was further expressed from Mrs. Grey as she explained that some honors classes have smaller numbers while co-taught classes had larger numbers. She went on to say that honors students typically do better in larger classes than lower achieving students and expressed that her smaller classes during second semester tends to prove that smaller classes worked better for the co-teaching approach. When the master schedule was examined many of the co-taught classes were significantly larger than honors level classes.

Lastly, the major frustration from the co-teachers came from the lack of support for co-teaching from outside of NHS. When asked to address any concerns or concepts not covered in the Post-co-teaching Teacher Survey one teacher responded with “I’m concerned about district support for co-teaching. While the school and administration are highly supportive, we do not feel the support from other quarters.” Another teacher remarked that co-teaching can be very effective but needed to be supported from all levels to be truly effective. Lastly, one teacher remarked that she was really frustrated with how co-teaching will look moving forward at NHS. She went on to say “it’s so frustrating to know what is in the best interest of the students (co-teaching) and the effort is not being made to put the students first.”

### **Analysis of Data**

The data collected from the mixed-methods action research study was used to address the following research questions:

1. What are the current levels of comfort and knowledge of co-teachers using the present co-teaching method of instruction?
2. What professional learning is critical in preparing teachers to implement co-teaching successfully?
3. What steps need to be taken to successfully prepare co-teachers to implement co-teaching?

The data collected in the Pre-co-teaching Teacher Survey helped answer the first research question. Based on the data the co-teachers appeared comfortable with implementing co-teaching. Before the training the co-teachers indicated that they *agreed* (77.8%) or *strongly agreed* (22.2%) with the statement “*I am comfortable implementing co-teaching.*” After the training co-teachers responded to the Post-co-teaching Teacher Survey and these responses proved that co-teachers are comfortable with co-teaching and in fact some of the co-teachers became more comfortable. The Likert scale item of “*I feel comfortable implementing co-teaching in my classroom*” had seven co-teachers respond that they *agreed* with the statement and one respond *strongly agreed*. In addition, when asked to respond to how comfortable they are with co-teaching all respondents reported they were comfortable with co-teaching. Their responses ranged from the same level of comfort as they started the training with to more comfortable and very comfortable.

When considering the second research question, there are several pieces of data that showed what professional learning needed to take place at NHS for successful co-teaching. The training that needed to take place is providing co-teachers with more in-depth knowledge of the different co-teaching approaches which is what they indicated from the Pre-co-teaching Teacher survey they needed. Co-teachers were provided with a

handout (see Appendix C) of the six co-teaching approaches from Friend et al. (2010). A deeper understanding of the six co-teaching approaches is essential for the co-teacher to successfully implement the best approach for the students in their class. Scruggs and Mastropieri (2017) support the idea of co-teaching knowledge by saying “it is *what* the two teachers do and *how* they do it that can make co-teaching effective for students” (p. 285). In addition, Obiakor et al. (2012) points out that co-teaching “requires teachers and service providers to be flexible in their teaching approaches and flexible in adjusting the curriculum rather than expecting students to modify themselves for the curriculum” (p. 484). Without an in depth understanding of the co-teaching approaches teachers will struggle to know what approach works best for their current students.

Furthermore, the knowledge that teachers gain from professional development on co-teaching will help them determine when and how to use the different co-teaching approaches. Friend (2008) points out that some approaches are for occasional use while other approaches are recommended for more frequent use. During a PLC meeting Mr. Orange mentioned that they do not use co-teaching every day in one of the math classes he co-teaches. Mrs. Purple supported this concept by adding that in her English they usually do co-teaching one or two times a week and typically on a set day(s) so the students are prepared for co-teaching when they come to class. Mrs. Brown added that to prepare a co-taught lesson everyday would be very difficult and time consuming and may not be the best approach for the students and co-teachers.

Lastly, the main professional development that needed to take place was co-teaching professional development with the idea of making better teachers. Walther-Thomas (1997) reported, “Many co-teachers reported that the experiences of working so

closely with other professional educators had been the best professional growth opportunity of their careers” (p. 401). In the Post-co-teaching Teacher Survey to the statement “*I plan to continue to improve at co-teaching*” 87.5% responded with *agreed* and 12.5% responded with *strongly agreed*. In addition, when asked “*what was the most beneficial aspect of training*” the co-teachers responded with: the time to discuss strengths and weaknesses of our approach, learning different strategies, discussing with co-workers, and sharing with others and having ideas validated. Besette (1999) mentioned that “in addition to a congenial atmosphere and the personal support co-teachers provide each other, collaborators share their ideas with and talk about what is working for them in their classroom” (p.4). The co-teachers at NHS clearly enjoyed the PLC meetings as they were able to grow as co-teachers by sharing ideas and concerns about what worked or did not work in their classroom. Furthermore, they have a better understanding of the different co-teaching approaches and how to successfully implement them for the benefit of their students.

For the final research question, there are several key pieces of data that the co-teachers provided that point to what is needed for co-teaching to be successful at NHS. The co-teachers indicated that support for co-teaching, from school and district administration, was the most important concept for co-teaching to be successful.

Support from school administration is very important if co-teaching is to be successful (Keefe & Moore, 2004; Lava, 2016; Mastropieri & Scruggs, 2001; Mofield, 2020; Moin, 2008; & Murawski & Bernhardt, 2015). Co-teachers responded to the statement “*I feel my administration supports co-teaching*” with 11.1% choosing neither *agreed* nor *disagreed*, 55.6% *agreed*, and 33.3% *strongly agreed*. When asked to respond



to the question “*How can the administration better support co-teaching?*” the co-teachers provided rich description of exactly what the administration at NHS needed to do to support co-teaching. One co-teacher responded, “Administration can better support co-teaching by providing a full-time co-teacher and have co-taught classes be smaller than an average class size.” Another co-teacher remarked, “My school does a fantastic job supporting co-teaching. From scheduling to consistency with co-teachers.”

“Communication with both teachers is essential in making a schedule and determining the enrollment for these classes” commented another co-teacher. Another co-teacher said, “Some official training would help. Also, a consistent mutual planning time with the co-teacher would help.” One of the math co-teachers mentioned, “I appreciate that most concerns have (from my experience) been addressed – reasonable class sizes, full time inclusion model, planning at the same time.”. Finally, one co-teacher said “Co-teaching should be a priority. Time is the biggest thing that you can give co-teachers. Time to plan and explore new options. Co-teaching should be a full block not split.”

When asked to respond to the statement “*Describe your co-teaching experience at Northwood High School*” co-teachers again responded with a rich description of their experiences. One of the co-teachers responded, “I have always enjoyed the concept of co-teaching, but have never had a full-time co-teacher.” Another co-teacher added, “It’s been good overall. General education teachers are open to it. Students see it as normal. In many ways we have moved past one teach, one assist model.” Another co-teacher said, “I have co-taught for four semesters. Three of them have been with the same co-teacher, which has been incredibly helpful. This year, having a common planning period has been very important as well.” One teacher described their experience as starting off rough due

to not being notified by the administration that they would be co-teaching and described the first year as a “train wreck.” The co-teacher went on to say, “Over time we have come to work well together. We have a true co-teaching class. He teaches and I teach.” Another co-teacher remarked about their co-teacher, “He helps with grouping students, planning station activities, and giving tips for learning certain parts of the curriculum. Our working relationship is one of comradery and cooperation which creates a positive learning environment.” Other co-teachers responded by saying concepts like “we feel very comfortable working together now” and “we have built an atmosphere that is supportive of co-teaching” and “we have presented ourselves as equals, and the students have respected that.”

Based on the above data, whether it be common planning time, smaller classes, and/or having the same co-teacher, the co-teachers at NHS feel supported by the school administration. On the other hand, the co-teachers do not feel fully supported from the district office when it comes to co-teaching.

In the Pre-co-teaching Teacher Survey, the co-teachers responded to the statement “*I feel the district office supports co-teaching*” as follows: 33.3% *agreed*, 55.6% *neither agree nor disagreed*, and 11.1% *strongly disagreed*. Going into the PLC meetings four of the co-teachers believed that the district supported co-teaching and five teachers had neutral feelings about the support from the district administration. Only one teacher reported feeling that the district did not support the co-teaching effort at NHS. When asked in the Post-co-teaching Teacher Survey to respond the statement “*I believe co-teaching will improve at NHS*” the co-teachers responded as follows: 25% or four co-

teachers *agreed*, 37.5% or three co-teachers *neither agree nor disagreed*, and 37.5% or three co-teachers *strongly disagreed*.

I believe that this is an indication of the impact of not having two full time special education co-teachers for the 2022-2023 school year. This can be seen in the co-teacher's response to the question "*What was the least beneficial aspect of the training?*" Several co-teachers responded that moving forward it would be difficult to fully implement the co-teaching strategies because of the lack of staff. In addition, when responding to the questions "*What do you believe the next steps should be for co-teaching at NHS?*" six of the eight respondents specifically mentioned addressing the need for two fulltime special education co-teachers. It is clear to see that the co-teachers believed that for co-teaching to be successful there needs to be two full time special education co-teachers.

During the 2021-2022 school year there was two full time special education co-teachers, one teaching all the math co-taught classes and the other teacher taught all the English co-taught classes. The co-teachers do not believe that co-teaching during the 2022-2023 school year would be successful as possible because the one remaining special education co-teacher would have to teach both math and English co-taught classes. The special education co-teacher would be stretched thin teaching four co-taught classes each day. Ultimately, the co-teachers do feel supported from the school administration but do not feel supported from the district administration.

### **Summary**

The data collected from the co-teachers provided clear answers to the research questions as it pertains to the co-teachers of NHS. The co-teachers provided evidence in their responses to the Pre-co-teaching Teacher Survey and Post-co-teaching Teacher

Survey that indicated that a majority of them were comfortable with co-teaching. They also indicated that they needed more knowledge on the six approaches of co-teaching. The specific knowledge they indicated they needed was more knowledge on when to use, how to use, and the benefits of each co-teaching approach. The co-teachers also indicated that an important part of the professional development was that they did not have to use the six approaches of co-teaching every day in class. Regarding what is needed to successfully implement co-teaching, the co-teachers indicated that they had the support of the school administration in the form of common planning, full time special education co-teacher, and support for co-teaching. However, they also indicated that they did not feel supported from the district administration because going into the 2022-2023 school year they would only have one special education co-teacher compared to the two they had during the 2021-2022 school year.

Chapter Five will discuss the way the research fits into the larger body of co-teaching research, along with the ways the data impacts the co-teachers of NHS and what co-teaching will look like moving forward. In addition, the chapter will present considerations for ways the data collected from this research study could be applied to other settings.

## **Chapter 5**

### **Results and Implications on Future Practice**

Co-teaching is an instructional practice that involves a special education and general education teacher working together to meet the specific needs of each student in the class. Both teachers represent the expert in their specific field, and the knowledge they bring helps every student in the class regardless of their ability. Collaborative learning theory (Lew, 2020, Lortie, 1975; Shakenova, 2017; Vygotsky, 1978) was the first element of the theoretical framework that supports this study. Collaborative learning theory from Lev Vygotsky's (1978) social development theory, focuses on the importance of social interaction and communication in learning. For effective co-teaching to occur, co-teachers must constantly and consistently interact and communicate about concepts that are beneficial and not beneficial for the students.

Learner-centered theory (Schiro, 2012) was also part of the theoretical framework for this study. The needs of the student and the meaning that students develop through interacting with other students and teachers is what drives learner-centered theory. A major focus of co-teaching is putting the needs of each student at the forefront of each lesson. Co-teaching provides a unique situation in which collaborative learning and learner-centered theories can be blended to see which concepts work best for the teachers implementing co-teaching.

At Northwood High School (NHS) co-teaching has been used for several years and a majority of the co-teachers have never received professional development

specifically for co-teaching. To remedy the lack of professional development, the current co-teachers were provided professional development through a professional learning community (PLC). The PLC provided teachers with an arena to voice their concerns, needs, and successes with the aim of developing a stronger co-teaching program at NHS. The focus of each PLC shifted based on the information provided from the co-teachers. This shift in the focus allowed the PLC to better meet the needs of the co-teachers. This mixed-methods action research study sought to answer the following research questions:

1. What are the current levels of comfort and knowledge of co-teachers using the present co-teaching method of instruction?
2. What professional learning is critical in preparing teachers to implement co-teaching successfully?
3. What steps need to be taken to successfully prepare co-teachers to implement co-teaching?

As the data was collected and analyzed, the following themes emerged: the comfort of the co-teachers, the knowledge of the co-teachers, and the frustration of the co-teachers.

The remainder of this chapter will focus on the results of the mixed-method action research study along with implications on future research and practice. The results of the study and ways it connects with the literature review are discussed, with a specific focus on ways administration can help and possibly hinder the implementation of co-teaching. Next, recommendations for the co-teaching practice at NHS are be discussed. The next steps for the co-teaching program are laid out along with an implementation plan for the future of co-teaching at NHS. A reflection on the research and selected methodology are then be presented. Limitations and recommendations follow in which concepts that could

help future research will be discussed. Lastly, the chapter concludes with a summary of the entire study.

### **Results Related to the Literature Review**

The results from this study are consistent with the results of the studies mentioned in the Chapter 2 literature review. In addition, some of the findings could enrich the existing literature base for the field of co-teaching. The major concepts that emerged from the study are the importance of a strong co-teaching relationship, the importance of time to plan, and the importance of administrative support.

#### **Importance of a Strong Co-teaching Relationship**

“As long as co-teachers continue to be an effective team, keep the pairs together. There should be no limit on how long a co-teaching pair remains together, if student learning continues to increase” (Simmons & Magiera, 2007, p. 9). In the initial survey, 88.9% of the study participants indicated that they have worked with the same partner each year. Building strong relationships in which the co-teachers know what the other is thinking and they automatically do what is best for the student is a major benefit of working with the same co-teacher each year. Friend (2015) says, “co-teachers are redefining the professional relationship: It’s less like a marriage and more like a business partnership. Each teacher brings important knowledge and skills to the classroom, and they learn from each other without trying to be interchangeable” (p. 21). One co-teacher mentioned that “over time we have come to work really well together. We have a true co-teaching class. He teaches and I teach.” Developing this type of relationship took time and is almost a trail by error process as both co-teachers had to develop trust with one

another and figure out which one does certain aspects of co-teaching more effectively than the other.

In addition, both co-teachers provided their own expertise to the co-teaching classroom and establishing a strong relationship allowed for both teachers to trust each other when interacting with the students. Mr. Orange's comment that some students (general and special education) are comfortable with asking him questions as he is walking around the classroom demonstrated that Mr. Orange and his co-teacher have a great relationship and that the co-teachers are seen as a collaborative team by the students. This type of relationship and collaboration allowed the students to receive the instruction they needed in a timely manner. As Nyikos and Hashimoto (1997) point out that "formal instruction (should) be paced so that students receive the right assistance at the particular stage when they need it" (p. 507). The co-teachers clearly benefited from a strong professional relationship, but ultimately, it is the students who truly benefited from the co-teacher's strong professional relationship.

### **Importance of Time to Plan**

Nierengarten and Hughes (2010) say, "It goes without saying that planning time is vital to the success of co-teaching on many levels. From establishing a collaborative and compatible relationship to lesson preparation, planning time is the factor that cements a team together" (p. 14). The co-teachers at NHS responded to the following statement in the Pre-co-teaching Teacher Survey "*I plan co-teaching lesson with my co-teacher*" as follows: 66.7% (six co-teachers) responded *agreed*, 22.2% (two co-teachers) responded *neither agree nor disagreed*, and 11.1% (one co-teacher) responded *disagreed*. Clearly, the co-teachers at NHS see the importance of planning together and take the time to plan



together for their own and students' benefit. Mr. Red's comment that co-teaching takes a lot of planning and preparation, but it pays off in the end dovetails with the conclusion of McGhie-Richmond et al. (2013) that "an important component of collaboration, particularly among the school staff, was scheduled planning time" (p. 217). One way that the co-teachers at NHS have been able to plan together is by providing them with one ninety-minute common planning period this past school year (21-22). The math teachers and the special education co-teacher assigned to them had fourth block planning during the school year and the English teachers and the special education co-teacher assigned to them had third block planning. The co-teachers used this time to plan for upcoming lessons. Since there is only one special education co-teacher per subject, that teacher would pick specific days to plan with the various general education teachers in that subject.

### **Importance of Administrative Support**

The study added to the existing information about the need of administrative support for co-teaching to be successful. Research clearly indicates that administrative support is critical for successful co-teaching (Gupta et al., 2016; Austin, 2001; Goddard et al., 2015), which corresponds with the findings of this study. The co-teachers at NHS responded to the following statement "*I feel my administration supports co-teaching*" on the Pre-co-teaching Teacher Survey as follows: 33.3% (three co-teachers) responded *strongly agreed*, 55.6% (five co-teachers) responded *agreed*, and 11.1% (one co-teacher) responded *neither agree nor disagreed*. One co-teacher responded that they felt the administration did a fantastic job supporting co-teaching and that scheduling and keeping the same co-teacher from year to year was done consistently.

Bernhardt and Murawski (2015) suggest five steps that administrators should take to help support co-teachers. The five steps are to provide professional development; establish scheduling strategies; partner the right teachers; supervise and evaluate strategically; and improve, increase, and institutionalize co-teaching. The administration at NHS has provided the professional development for the co-teachers in the form of the PLC meetings for this research study. When considering the master schedule, the administration took into consideration the scheduling needs of the co-teachers by giving them a common planning period based on the subjects they taught their special education co-teacher partner. In addition, the co-teachers responded to the following statement on the Pre-co-teaching Teacher Survey “*I have time during the school day to plan co-teaching lessons*” as follows: 11.1% (one co-teacher) responded *strongly agreed*, 66.7% (six co-teachers) responded *agreed*, and 22.2% (two co-teachers) responded *neither agree nor disagreed*. It is evident that the administration has established scheduling strategies to get the most out of the co-teaching problem from a scheduling standpoint. When considering who the co-teachers are and who they work with it has taken the administration some time to figure out what pairs worked best but now the co-teachers feel comfortable working with their co-teaching partner. For example, one teacher said that they have always presented themselves as equals and professionals to the students and the students respected both co-teachers equally in the classroom. The final two suggestions from Bernhardt and Murawski (2015) will be discussed in the recommendation section of this chapter.

In conclusion, data collected for this study showed the importance and need of co-teaching at NHS, but suggests there is still room for improvement and growth. The

recommendations for the practice of co-teaching and the implementation plan for co-teaching at NHS will be discussed in the next section.

### **Co-teaching Recommendations**

The recommendation based on the data and conclusions of this research study is the support from the co-teachers and administration of NHS. Suggestions for further research will be discussed along with ideas about how other schools could learn from the co-teaching experience at NHS and possibly avoid some of the mistakes made during the early years of co-teaching at NHS. Finally, an implementation plan is included to highlight the next steps at NHS.

As a group, NHS co-teachers supported co-teaching and want to see it successfully implemented for the benefit of students. As an administrator, I consider getting teacher buy-in and desire for success as the biggest recommendation for those wanting to implement co-teaching. Without the desire from the teachers to truly see co-teaching successfully implemented, the administration is in essence wasting their time. Mastropieri et al. (2005) point out that “voluntary participants tended to report more positive perceptions of (co-teaching) than did teachers who were assigned to co-teaching” (p. 261).

Providing students with the most appropriate education is a very important concept in education and this is especially true with special education students. Co-teaching is one method of instruction that allows for equity of special education students. Typically, these students could be taught by the special education teacher only, but co-teaching provides an opportunity for special education students to be in the classroom with their peers. “Educators need to embrace the mindset that inclusion is an issue of both

equity and social justice. Then, teachers and administrators will be more prepared for and committed to co-teaching” (Murawski & Bernhardt, 2016, p. 34). Co-teaching provides all students with the chance to receive learner-centered instruction from two qualified professionals which helps put all students in the classroom on a level playing field, especially special education students. Equity is huge concept in today’s society and is very important in education, and co-teaching provides a means to provide equity to all students in a co-taught classroom.

Possibly the most important recommendation for implementing co-teaching is that the administration must develop strategies to support their co-teachers. The plan for NHS is to continue to support co-teachers in a number of ways. First, we will build the master schedule around special education classes. This will ensure that the needs of students with Individualized Educational Plans (IEP) are addressed before general education students. Second, professional development will continue to be provided to co-teachers to allow them to continue to develop the skills needed to become a more capable co-teacher. Lastly, we will continue to have candid conversations about co-teaching and co-teachers will be provided a “safe space” to voice issues and concerns. Just because the study is over does not mean the co-teachers should not be provided an opportunity to continue to improve co-teaching at NHS.

Furthermore, the administration must develop the school’s master schedule around co-teaching and this proved to be the biggest challenge. Providing our co-teachers with a common planning period was very beneficial as it allowed them to have time during the school day to plan co-taught lessons. The actual creation of the master schedule was the difficult part as one is juggling so many moving parts when creating a

master schedule. For example, providing the English co-teachers with a common planning period meant that 5 teachers would automatically have that planning period, which would limit the number of other teachers who could have that planning period. Some teachers need a certain planning period because they may be shared staff with another school, they may prefer a certain planning period, or they may coach and require a certain planning period. Also, one must make sure there are enough teachers teaching during a given period, so all the students have a class to go to during that period. In addition, as a small school we have several classes that are only taught once a day which limits a teacher's availability for certain planning periods. Lastly, expanding co-teaching to other subjects, for example, science or social studies could prove very difficult as we would need more teachers (general and special education) to ensure that all student needs are met.

A few suggestions for extending this action research study are including the perspective of the co-taught students, including the co-teachers and co-taught students from Southlake High School (SHS) the other high school in the district, and expanding the study to cover an entire school year. The research could be extended by included the perspective of the co-taught students at NHS. The student's perspective could allow for a richer description of the benefits and shortcomings of co-teaching. In addition, the students voice could allow co-teachers to make better adjustments to their co-teaching methods to allow for stronger co-teaching instruction. Another suggestion to strengthen the research could be including the co-teachers and co-taught students from SHS. This would allow for the development of a district wide co-teaching program which would benefit from the information and data gathered from both high schools. Finally,

expanding the length of the action research study would allow for more data to be collected. This additional data could allow for more co-teaching themes to emerge which would allow for a more comprehensive co-teaching program to be developed which could lead to more student success. These suggestions could strengthen the co-teaching program and NHS and allow for a better overall action research study.

While action research is not transferable, other schools and/or districts could be informed by what was learned from our co-teaching experience to avoid potential pitfalls. Key strategies they might consider are gaining support from district level administrators and providing co-teachers with relevant training and support. If co-teaching is just starting, an administrator has the advantage of being able to either go through training before the co-teachers or while they are receiving training. When co-teachers know their administrator has gone through training or will go through the process with the co-teachers the bond of the group will strengthen as they see the administrator is willing to learn about what the co-teachers will be implementing. On the other hand, if co-teaching already exists when one takes over as principal, the first step should be to get a pulse check of the total co-teaching program. This should allow the administrator to know what works, what needs to be improved, and what training (if any) should be provided. Lastly, a major concept that can be transferable to other co-teaching programs is listening to co-teachers and what they need to improve the overall co-teaching programs. The co-teachers are working together every day and have firsthand knowledge on what works and what needs to be changed. To not listen to them will probably result in failure for the co-teaching program.

These suggestions connect to this study's theoretical framework of collaborative learning theory paired with learner centered ideology. Collaborative learning in the form of PLCs can be beneficial for participants as it allows facilitation of "improved communication among teachers, and between teachers and others. . . [and] structured time for sharing and collaboration" (Jones & Dexter, 2014p. 369). In addition, when teachers who practice collaborative learning also focus on learner centered instruction, it is a win for both the teachers and students as noted by Rallis (1996), who points out that "learner centered teachers recognize that knowledge construction is not entirely an individual process"(p. 22). This combination offers equal opportunities to learn for all students because "teachers learn . . . what talents and life experiences each child brings and what each child needs" (Rallis, 1996, p. 23). Co-teaching exemplifies these ideas since it requires that two teaching professionals collaborate to develop lessons that are learner centered and meet each student where they are academically.

### **Co-teaching Implementation Plan**

The implementation plan is the final critical step in the action research process as it allowed me to put into practice what I have discovered. For this study there are two important steps that will need to take place for the co-teaching program at NHS. First, as a group, co-teachers and administrators must continue to improve our co-teaching approach. Secondly, as the principal, I must develop a plan that will continue to grow the co-teaching program.

Co-teaching has improved at NHS due to the teachers' commitment and the information discussed and learned during the PLC meetings. Co-teachers will be encouraged to continue growing in their co-teaching knowledge to improve their practice.

This will benefit the co-teaching pairs along with the students. As well, I will meet with the co-teachers once a month to discuss their needs to improve the program and to keep a check on the total program. When needed I will meet with co-teachers individually to discuss their co-teaching relationship strengths and weaknesses so they can focus on improving their co-teaching relationship. Moreover, I will provide co-teachers with professional development on co-teaching in the form of professional articles, discussions, and workshops. The desire to continue to improve as co-teachers is there as indicated from the Post-co-teaching Teacher Survey as indicated by the fact that all co-teachers responded *strongly agreed* or *agreed*. As the principal, I must provide the training, resources, and support that the co-teachers desire to improve the overall quality of the co-teaching program at NHS.

Finally, as the principal, I must develop a plan to develop the next group of co-teachers. Since the data was collected, one of the English co-teachers took another job at another school. This has created a hole in the co-teaching program that must be addressed. Moving forward, potential co-teachers will be identified based on their desire of teaching, willingness to teach all ability levels of students, and their ability to collaborate with peers. These teachers will be provided with professional development that provides a base of co-teaching knowledge, opportunities to meet with current co-teachers to learn best practices, and unhindered time to observe current co-teachers to see the co-teaching in action. As a school we need highly qualified co-teachers to be ready to step up when current co-teachers retire, move on to another school, or decide they do not want to co-teach anymore. Providing interested teachers, the knowledge they need to be successful at co-teaching will allow for smoother transitions when change does occur.



The part that will prove to be the most difficult will be building those co-teaching relationships as the true relationship will not be built until they start co-teaching together. Sims (2008) gives the following tip for co-teachers: “Remember that your relationship will be a model to your students. You don’t have to be best friends with your co-teacher, but you must cultivate a friendship” (p. 63). The proposed training will take place once a month with the potential co-teachers, administration, and at least one current co-teacher present. In addition, potential co-teachers will be assigned to a current co-teacher to provide a mentor. The co-teaching mentor will provide ideas, strategies, and concepts for their mentee that will eventually make the transition to fulltime co-teaching easier for all involved. One never knows when a teacher will leave the profession or decide to stop co-teaching, therefore, it only makes sense to provide potential co-teachers with the needed training to become successful co-teachers.

The biggest, unexpected outcome of the research study was major change to co-teaching at NHS moving into the 22-23 school year. We started the school year with only one special education co-teacher and with one new English co-teacher. This was totally unexpected and left me scrambling to create a schedule that filled the co-teaching needs of our students and find a suitable replacement for the English co-teacher. More importantly, this left the remaining co-teachers extremely frustrated as they felt the co-teaching program was heading in the right direction before we lost a special education co-teacher and an English teacher. After losing the special education co-teacher the remaining co-teacher felt we had taken two steps back despite our best efforts to improve co-teaching at NHS.

When considering the sharing of the results of this action research study there are a few ways that make the most sense in sharing the information gathered. First, sharing the information from this action research study with the principal of SHS and district administration makes the most sense as developing a district approach to co-teaching would benefit the entire district. Next, there are several other districts in the county besides mine and each district has at least one high school. The principals of the county high schools get together once a month, and this would be a perfect forum to share the results of this action research study. Lastly, a method of extending the results to the state level would be to apply to present at the South Carolina Association of School Administrators (SCASA) annual Innovative Ideas Institute. This would allow me to have a platform at the state level to share the findings of my action research study which would provide other administrators a starting point to possibly start co-teaching or improve their co-teaching efforts.

This study showed how important co-teaching relationships, professional development, planning time, and administrative support is for a co-teaching program to be successful. It is ultimately up to the principal to make sure co-teachers are getting what they need to have a successful co-teaching program. The next section will be a reflection on what went as expected, what was unexpected, and any changes that would be made considering the knowledge gained from the research.

### **Reflection on the Action Research Study**

Reflection of the entire research process is an important step as it allows a person to consider what went well, what did not work, and what could be improved on for future research. Honestly, the biggest surprise for me was the need for co-teachers to gather and

discuss their co-teaching practice. Going into the study I believed that the co-teachers would identify several areas of needed growth or develop an in-depth co-teaching plan for NHS. While work was in both areas what I believe was the biggest benefit for the co-teachers was the ability to gather around a table and discuss their feelings, experiences, successes, and failures concerning co-teaching. Mrs. Blue remarked during one of the PLC meetings that she really enjoyed spending time with the other co-teachers and felt that the true benefit of meeting was hearing about the other co-teachers experiences. There was a true bonding during the PLC meetings as the co-teacher started using the time to have professional conversations that they normally do not get to have and that they truly need to have to continue to develop as professionals. Several times during the PLC they would make an honest comment and look at me as if I would say something negative in response to their honest feelings or thoughts. Toward the end of the second PLC meeting Mr. Orange made a comment and everyone laughed, and he quickly said “just for clarification that was Mr. Red.” He was comfortable enough to make the comment but also aware that some people may not have liked the comment. The co-teachers benefited from the PLC but more importantly the PLC provided them with these moments of decompression that they really needed, and these moments were a major unforeseen benefit of the study.

Along with the above major surprise, as the principal of NHS I was pleased with the level of excitement and commitment that the co-teachers have concerning co-teaching. All the teachers were committed to improving co-teaching at NHS because they felt it was the best instructional method for the students. Additionally, the level of honesty and candor that the co-teachers brought to the PLCs was very refreshing. They

were willing to not allow the teacher principal dynamic to influence their opinion and thoughts about what needed to happen to improve co-teaching at NHS.

I believed that the professional development PLC meetings went well and that the co-teachers not only enjoyed them but improved their overall co-teaching practice by participating in the PLC meetings. There was clearly a need for a joint effort co-teaching professional development, and the co-teachers did a wonderful job of participating, discussing, and improving during each meeting. They would bring back new questions, concerns, and knowledge each time that helped improve the overall co-teaching knowledge of the entire group. They truly took ownership of the PLC meetings, and they not only ended up running the meetings but also and more importantly felt comfortable discussing ideas and concepts that improved and challenged the norms of co-teaching at NHS.

Reflecting on any changes that would need to be made to the study, I believe the biggest change would be to include potential co-teachers in the study. This is a group that needs to be developed to ensure the future success of co-teaching at NHS, and this group was not even on my radar until we lost some of our current co-teachers. Ultimately, if future co-teachers are not prepared at NHS, then the co-teacher program will never reach its full potential. One unexpected insight that I did gain during this research study is the commitment to co-teaching that the co-teachers have. Despite the fact of losing co-teachers the remaining co-teachers are committed to making co-teaching work at NHS, so much so that the special education co-teacher is willing to teach four co-taught classes.

Lastly, when reflecting on the personal and professional value of this research study there are a couple aspects that stand out to me. First, I fully agree with and support

personally and professionally co-teaching as an educational concept. I am a former co-teacher and have spent countless hours preparing lessons for the benefit of the students. This research study allowed me to reflect on my own practice as a co-teacher and what I could have done better. Co-teaching is personally and professionally near and dear to my heart because I am convinced it works and is beneficial for all students involved, regardless of their ability level. Lastly, professionally this research study has allowed me to reflect on my role as instructional leader at NHS. Regardless of the initiative or program (co-teaching or anything) that we are trying to implement, if I do not fully support the teachers and provide them with the encouragement and support, they need, then the initiative or program will probably not succeed.

Overall, I feel like I have come full circle concerning co-teaching. I started my co-teaching journey with excitement that quickly gave way to frustration as I realized there would be very little professional development, planning time, and administrative support. Through a system of trail and error I made co-teaching successful in my classroom. As an administrator, I inherited a group of passionate co-teachers. When I approached each co-teacher about the possibility of this study, they were very excited and jumped at the opportunity to become better at their co-teaching craft. Very similar to my own experience their excitement quickly gave way to frustration as they realized that co-teaching was not going to be supported from “other quarters” as one co-teacher said during a PLC meeting. Where I did not receive the professional development, planning time, and administrative support I will ensure that the co-teachers have what they need to be supported and successful.

Reflection is an important part of any journey and was especially helpful and important with this action research study. Part of the reflection process revealed some limitations and suggestions for this action research study. These limitations and suggestions will be discussed in the next section.

### **Limitations**

One of the major limitations for this research study is that I was principal for the co-teachers who participated in the study. There were several times during PLC meetings that I had to remind the co-teachers that I was in the role of researcher and not their principal. I described to them in detail that what they shared would not go beyond the people involved in the study and that their identities would be protected. Despite those assurances there were times that I felt the co-teachers had more to say but held back because of my position of authority over them. This could have potentially limited the qualitative data as teachers hesitated to share their true feelings and opinions.

A limitation concerning the PLC meetings was the length of the meetings. In an effort to be respectful of the co-teacher's time the PLC meetings were limited to approximately one hour per meeting. I believe that lengthen the time of these meeting would have been more beneficial for all involved as we would have felt as rushed to cover different concepts and topics. Ideally, we would have taken a half day to meet and discuss co-teaching and really dig deeper into the concepts, concerns, and success that the co-teachers wanted to cover. From an administrative standpoint, this would have involved having substitutes available for the co-teachers so their classes were covered during the time of the PLC meetings. Furthermore, three to four half day meetings would

have been advantageous and would have provided the co-teachers more time to reflect and possibly plan co-taught lessons as a department.

Another limitation for this study was that it only involved teachers at one school. Qualitatively speaking this is not necessarily an issue but when considering the quantitative data, more teachers answering the Pre- and Post-co-teaching Teacher Surveys could have provided stronger data points. More co-teaching participants would have provided more data and could have revealed additional themes. To end, time was a major limitation as it would have been great to have an entire school year or longer to have PLC meetings with the co-teachers. With more time we could have dug deeper into some of the co-teaching concepts and involving potential co-teachers to the PLC meetings could have been done. In conclusion, these limitations are all concepts that arose as I reflected on my process and what I would add if I were to do the research study again. These limitations give rise to recommendations that could potentially help future research which will be described in the next section.

### **Recommendations for Future Research**

The two biggest recommendations for future research concerning co-teaching would be to expand the study to more schools and incorporate a pre- and post-test to see the impact of co-teaching from a grading standpoint. Expanding the study to other schools would allow for more voices to be heard concerning co-teaching. Co-teachers from one school may be able to provide a perspective or suggestion that co-teachers at the other schools have not thought about. Having more participants provides varying perspectives which could be very beneficial. In addition, the experiences of numerous co-teachers could prove invaluable for the younger co-teachers or those who are new to the

co-teaching instructional approach. Also, expanding the observations of the co-taught lessons could result in more data gather. For example, having the co-teachers observe one another could result in different data points as they see the lesson through teacher eyes and not administrative eyes. This could potentially result in the development of different themes for future research.

Moreover, incorporating a pre-test would allow researchers to establish a baseline of student knowledge before receiving co-teaching instruction. After they have received co-teaching instruction students would then take a post-test to gauge what they had learned by comparing the results of the pre-test and post-test. The use of this pre- and post-test would provide data to show what students learned and what concepts they struggled with. Furthermore, with every co-taught class that uses the pre- and post-test the more data that is collected to see the long-term benefits of co-teaching. One use of the pre- and post-test may show that co-teaching works but long-term use of the pre- and post-test could prove that co-teaching truly impacts student achievement in a positive way.

Future studies that emerged from this action research study were the importance of having all levels of administrative support on board with co-teaching. Teachers believed the NHS administration was fully committed to co-teaching and providing the co-teachers with the support they needed. However, they did not believe the district office administration fully supported their efforts to improve co-teaching. The major issue that the co-teachers had was the failure to replace one of the special education co-teachers with a full-time special education teacher. Consequently, conducting this study made me realize how critical is for school administrators to be timely and clear in



communicating their plans to the district office administrators when planning on implementing co-teaching at their school to ensure that the correct number of staff are in place to successfully implement the co-teaching program.

### **Summary**

The co-teachers of NHS, as a group, had never received professional development specifically tailored for their professional needs. Some of the co-teachers had received proper professional development while at other schools while some co-teachers learned what to do through trial and error. This mixed-methods action research study provided the co-teachers an opportunity to receive the co-teaching training they needed to improve their co-teaching practice. Along the course of the study pre- and post-surveys, PLCs, and honest conversations were used to help develop a co-teaching approach that works for the co-teachers at NHS.

The study helped show that co-teaching can only be successful when co-teachers and administrators work together and focus on student centered learning. Though there is still room for improvement in co-teaching at NHS we have started the process of improving as co-teachers and administrators for the benefit of the students.

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## **Appendix A**

### **Pre-Co-Teaching Teacher Survey**

For statements 1-10 respond with one of the following: strongly disagree, disagree, neither agree nor disagree, agree, or strongly agree.

1. Co-teaching can be beneficial for students.
2. I have been properly trained to implement co-teaching.
3. I feel the district office supports co-teaching.
4. I feel my administration supports co-teaching.
5. I plan co-teaching lessons with my co-teacher.
6. I have time during the school day to plan co-teaching lessons.
7. I am comfortable implementing co-teaching.
8. I am uncomfortable implementing co-teaching.
9. I work with the same co-teacher each year.
10. I would like to learn more about implementing co-teaching.

For the free response statements (11-15) please respond in as much detail as possible.

11. Describe any co-teaching training you have received.
12. How can the administration better support co-teaching?
13. Describe what you need to be more comfortable implementing co-teaching.
14. Describe your co-teaching experience at Northwood High School.
15. Please describe anything else that would be beneficial for the study.

## **Appendix B**

### **Post-Co-Teaching Teacher Survey**

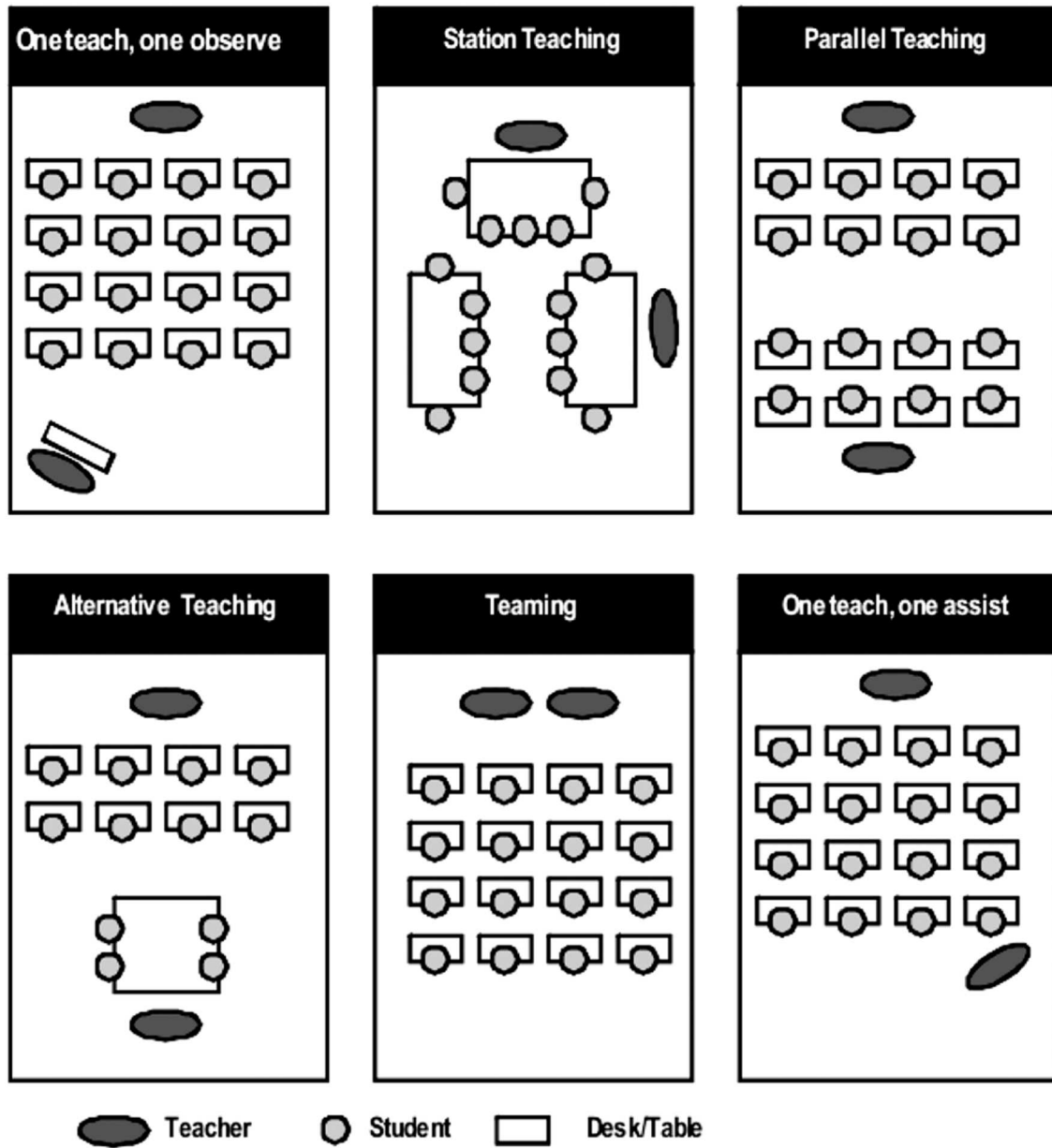
For statements 1-5 respond with one of the following: strongly disagree, disagree, neither agree nor disagree, agree, or strongly agree.

1. I feel comfortable implementing co-teaching in my classroom.
2. The co-teaching training was beneficial.
3. The co-teaching training was not beneficial.
4. I believe that co-teaching will improve at Northwood High School.
5. I plan to continue to improve at co-teaching.

For the free response statements (6-10) please respond in as much detail as possible.

6. What was the most beneficial aspect of the training?
7. What was the least beneficial aspect of the training?
8. Describe how comfortable you are with co-teaching after the training/
9. What do you believe the next steps should be for co-teaching at Northwood High School?
10. Please use the space below to address any concerns or concepts that were not covered in the items above.

## Appendix C



**Figure Appendix C** *Friend and Cook's Six Approaches of Co-Teaching*