

Inclusive Practices in the Collaborative, Co-Taught K-12 Classroom  
in One Virginia School Division: A Qualitative Study

Jennifer Lynn Fleming

Dissertation submitted to the faculty of the Virginia Polytechnic Institute and State University in  
partial fulfillment of the requirements for the degree of

Doctor of Education

in

Educational Leadership and Policy Studies

Carol A. Mullen, Chair

Jodie L. Brinkmann

Carol S. Cash

Cindy C. Klimaitis

September 3, 2022

Blacksburg, Virginia

Keywords: *collaboration, collaborative strategies/practices, co-teaching, inclusion, inclusive, K-12 education, leadership, United States*

Inclusive Practices in the Collaborative, Co-Taught K-12 Classroom  
in One Virginia School Division: A Qualitative Study

Jennifer Lynn Fleming

**ABSTRACT**

The topic of this study is inclusive strategies utilized by teachers in collaborative, co-taught K-12 classrooms. The purpose of this qualitative study was to identify inclusive practices, strategies, communication, and professional development (PD) factors in collaborative, co-taught K-12 inclusive classrooms. A gap was addressed in the literature by exploring and investigating the lived experiences of collaborative, co-teaching teams. The primary research question for this study was, what practices and strategies are implemented in collaborative, co-taught K-12 classrooms? The secondary questions were (a) What strategies do co-teaching collaborations utilize? (b) What communications/collaborations between partners were utilized? (c) What additional training/support do co-teaching partners need from administrators?

A demographic survey of 48 teachers was completed, and focus groups or one-on-one interviews were conducted with nine participants from nine schools. The research site consisted of teachers from nine K-12 public schools representing varying levels: primary, middle, and secondary. Nine eligible teachers agreed to participate in a one-on-one or focus group interview paired by areas of expertise using a protocol. Criteria for participation were one or more years of experience in an inclusive, collaborative, co-taught K-12 classroom within the pre-selected rural school division in Southwest Virginia. Data on effective practices and strategies in collaborative, co-taught K-12 classrooms as perceived by teachers were analyzed. Deductive coding was used to determine common themes, similarities, differences, and patterns from the data. Eight major

findings were discovered, including collaborative, co-teaching pair strategies, administrative needs, and tips for future pairs.

An in-depth understanding of the perspectives of the collaborative, co-teaching pair focusing on the pair's communication, responsibilities, tasks, and expectations helped to identify strategies for improving inclusive practices. The interview findings were used to identify strategies (e.g., differentiated lessons, scaffolding, team approach, and station teaching) for improving inclusive practices. Studying inclusive practices in the collaborative, co-taught K-12 classroom is important for raising awareness about the importance of this kind of teaching relationship for improving the learning environment of all students and increasing academic achievement.

# Inclusive Practices in the Collaborative, Co-Taught K-12 Classroom

## in One Virginia School Division: A Qualitative Study

Jennifer Lynn Fleming

### **General Audience Abstract**

Studying inclusive practices in the collaborative, co-taught K-12 classroom is important for raising awareness about the importance of this kind of teaching relationship for improving the learning environment of all students and increasing academic achievement. A demographic survey of 48 teachers was completed and one-on-one interviews or focus group interviews paired by areas of expertise were conducted with 9 eligible participants from 9 schools who agreed to participate. The research site consisted of teachers from 9 schools from varying levels, primary, middle, and secondary K-12 public schools. Criteria for participation were 1 or more years of experience in an inclusive, collaborative, co-taught K-12 classroom within the pre-selected rural school division in Southwest Virginia.

An in-depth understanding of the perspectives of the collaborative, co-teaching pair focusing on the pair's communication, responsibilities, tasks, and expectations helped to identify strategies (e.g., differentiated lessons, scaffolding, team approach, and station teaching) to provide literature-based strategies for improving inclusive practices. Studying inclusive practices in the collaborative, co-taught K-12 classroom is important for raising awareness about the importance of this kind of teaching relationship for improving the learning environment of all students and increasing academic achievement.

## DEDICATION

I dedicate this dissertation to my loving family, especially my sons Matthew Christian and Aiden Jacob. You are my reason for completing my terminal degree. I wanted to show you that no matter how difficult the journey, persistence, kindness, and love make all things possible. My life has not always been easy; however, I have had role models that have shown me just what can happen when one sets her mind to achieving a goal.

I also dedicate this study to my parents who have always stood behind me in my educational journeys. Living in rural Southwest Virginia as a daughter of a fourth-generation coal miner and a registered nurse with her BSN, I have learned the value of education. All the hardships you have had to endure to provide me with everything have not gone unnoticed. I will forever be in your debt for the values and love you have instilled in me.

I thank my aunt Kimberly for always being my sounding board, encourager, and best friend. I can never express the gratitude I have for your rapport and encouragement throughout this journey and my life. You remind me of the long line of strong women we are descended from, and what I am made of when I have most needed to remember. For that, I will forever be in your debt.

Finally, I would like to thank all my students and their families for entrusting me with their children's education. I will forever fight for what is right and just for children, especially those with disabilities. Thank you for helping me to evolve into the educator I am today. Together we will continue to grow and learn from one another. Never give up on your dreams, and you will always have me in your corner.

## ACKNOWLEDGEMENTS

First, I would like to thank God for all His blessings in my life. Without my faith, I would not be the person that I am today. He leads me to be a lifelong educator. The decision to work in the education field was one of the easiest for me. For as long as I can remember, I have always wanted to assist children and young adults to fulfill their dreams. For that reason, I decided to become one of the most influential individuals in a child's life: a teacher. I work daily to help students discover their unique abilities as well as help them to identify their strengths and move past their weaknesses. Most importantly I work diligently to help every child see themselves the way I do—full of worth, potential, and value. Thus, I wanted my dissertation to encompass social justice for a marginalized group that oftentimes does not see all the attributes they possess.

I want to express my love and gratitude for my advisor and dissertation committee chair, Dr. Carol A. Mullen. You have been my guiding force throughout my doctoral journey. I would not have been able to accomplish half of what I have done without you in my corner. You are what a true educator and advisor should be. You helped to pull out the best in me, especially when I was feeling inadequate in my abilities. You are truly an example of what I admire most in a strong, influential woman. You will forever be my friend and a member of my family. I will never be able to verbalize just how influential you have been and continue to be in my life. For that, I thank you from the bottom of my heart.

Thank you to my committee members, Dr. Jodie Brinkmann, Dr. Carol Cash, and Dr. Cindy Klimaitis. Each of you assisted my doctoral journey with valuable feedback and guidance. Your expertise has helped me to become a stronger researcher. Thank you for your valuable time, continued guidance, and ongoing support.

My friends and colleagues Dr. Susan Badger, Dr. Judy Cox, Dr. Cindy Klimaitis, Dr. Carrie Deel, and Janice Bolling have each helped inspired the best in me with support and valuable guidance for which I will forever be grateful.

## Table of Contents

ABSTRACT.....	ii
GENERAL AUDIENCE ABSTRACT.....	iv
DEDICATION.....	v
ACKNOWLEDGEMENTS.....	vi
LIST OF FIGURES.....	x
LIST OF TABLES.....	xi
Chapter 1: Introduction.....	1
Overview and Purpose of the Study.....	1
Statement of the Problem.....	1
Significance of the Study.....	1
Justification of the Study.....	3
Conceptual Framework.....	4
Definition of Terms.....	10
Organization of Study.....	133
Summary.....	13
Chapter 2: A Review of the Literature.....	14
Introduction.....	14
Inclusion and Exclusion Criteria.....	14
Definitions of Inclusion, Co-teaching, and Collaboration.....	16
Laws and Policies Governing K-12 Inclusive Education.....	19
Collaborative, Co-teaching Education in K-12 Schools.....	25
Collaborative, Co-teaching Strategies in K-12 Schools.....	30
Role of Leadership in an Inclusive K-12 School.....	35
Summary.....	41
Chapter 3: Methodology.....	43
Research Questions.....	43
Research Design and Justification.....	43
Selection of Setting and Participants.....	45
Limitations/Delimitations.....	45
Data Collection Procedures.....	47
Instrument Design and Validation.....	47
Interview Protocol.....	50
Confidentiality and Ethical Treatment of the Data.....	50
Data Analysis.....	50
Summary.....	522
Chapter 4: Data Analysis and Findings.....	53
Introduction.....	53
Finding 1.....	61
Finding 2.....	63



Finding 3 .....	65
Finding 4 .....	66
Finding 5 .....	72
Finding 6 .....	73
Finding 7 .....	74
Finding 8 .....	76
Data Points .....	77
Summary .....	79
Chapter 5: Discussion of the Major Findings and Implications .....	80
Introduction .....	80
Review of Major Findings .....	80
Practitioner Implications .....	84
Policy Implications .....	87
Suggestions for Future Research .....	87
Conclusions .....	88
References .....	90
Appedices .....	99
Appendix A: Demographic Survey for Collaborative, Co-teachers .....	99
Appendix B: Literature Review of Collaborative, Co-teaching Strategies in K-12 Inclusive Classrooms .....	101
Appendix C: Teacher Interview Protocol on Collaborative, Co-teaching Experience .....	112
Appendix D: Informed Consent for the Interview .....	114
Appendix E: Email to Superintendent, Requesting Permission to Conduct Study .....	116
Appendix F: Email to Principals, Requesting Permission to Conduct Study .....	118
Appendix G: Email to Focus Group or One-on-One Participants for Interview Transcription..	119
Appendix H: Coding of Interview Data for Participant #1ESE (Sample) .....	120
Appendix I: Collaboartive, Co-teaching Experience Interview Questions and Responses .....	115
Appendix J: Findings and Implications on Collaborative, Co-teaching Experience .....	124
Appendix K: CITI Program Certificates .....	127
Appendix L: IRB#22-135 Approval Letter .....	128

**LIST OF FIGURES**

Figures	Page
1. Design-Based Phases .....	7
2. Co-Teaching Implementation Framework Including Historicity....	9

## LIST OF TABLES UPDATE

Tables	Page
1. Comparing Interpretive Frameworks .....	5
2. Benefits of Co-teaching .....	18
3. Synopsis of Co-teaching Models .....	28
4. Co-teaching Approaches .....	31
5. Guidelines for Successfully Differentiating Instruction in Inclusive Classrooms .....	40
6. Questions for Interview Protocol and Verifying Sources .....	48
7. Alignment of Interview Questions to Research Questions, Data Sources, Codes, and Analytic Procedure.....	51
8. Demographic Survey Results of Interviewees.....	53
9. Teacher Interview Questions on Collaborative, Co-teaching .....	54
10. Participant Quotes by Findings.....	55
11. Major Findings by Participant.....	60
12. Collaborative, Co-teaching Strategies Used by Participants.....	67

## **Chapter 1: Introduction**

### **Study Overview**

The topic of this study is inclusive strategies utilized by teachers in collaborative, co-taught K-12 classrooms. The purpose of this qualitative study was to identify inclusive practices, strategies, communication, and professional development (PD) factors in collaborative, co-taught K-12 inclusive classrooms.

### **Statement of the Problem**

Students with Disabilities (SWD) are being educated in collaborative, co-taught environments that still need administrative support and guidance in order to be successful. Co-teaching allows SWDs access to the general education curriculum in which two professionals collaborate to enrich students' least restrictive environment (LRE). Because barriers to inclusive education exist, more needs to be known about how pedagogical relationships function to generate success for SWDs. As detailed in the research by Klimaitis and Mullen (2021), multiple barriers to inclusive education exist for SWDs: school personnel who act in isolated ways, not as collaborators; a lack of relevant knowledge and skills for both teachers and principals; resistance to attempting new ways to serve SWDs; a continued lack of training targeting inclusive educational practices; and a lack of meaningful instructional, environmental, and testing accommodations. The presence of low expectations for SWDs is a further barrier to inclusive education.

### **Significance of the Study**

The significance of studying inclusive practices in the collaborative, co-taught K-12 classroom is to raise awareness about the importance of this kind of teaching strategy for improving the learning environment of all students and increasing academic achievement.

This study uses detailed interviews that outline the firsthand experiences of collaborative, co-teaching professionals in an inclusive classroom. These perspectives are used to outline current themes in these classroom settings to bring about change to service the marginalized group of SWDs. Responses to the research questions may help other teachers, administrators, and division leaders to identify effective practices and strategies implemented in collaborative, co-taught K-12 classrooms. The open-ended questions asked during the interviews gave voice to collaborative, co-teachers, allowing them to give insight on partnership communication, training, PD, and preparation for collaborative, co-teachers. The researcher gained insight into inclusive practices in collaborative, co-taught K-12 classrooms for raising awareness about the importance of this kind of relationship for improving the learning environment of all students and increasing academic achievement.

During the 1950s and 1960s, the US federal government began to develop and validate practices for children with disabilities and their families (US Department of Education [USDOE], 2007). These actions were brought to fruition due to the dedicated support and advocacy of family associations such as The Arc (Association for Retarded Citizens of the US, 1992). (Over the years, as the words *retardation* and *retarded* were recognized as demeaning, the organization changed the terminology to reflect the desires of people with disabilities and changed its name to The Arc. While the term still appears occasionally, it has been replaced with *intellectual disability* and *developmental disability*.) The practices that came out of this policy laid the foundation for implementing effective programs and services of early intervention and special education in states and localities across the county (USDOE, 2007). In 1975, President Gerald Ford signed into law the EHA (1975). Dudley-Marling and Burns (2014) pointed out that before, “the enactment of the landmark legislation, EHA (1975), only one in five SWDs in the

US were educated in public schools” (p. 14). This statistic showed that only 20% of SWDs were being educated in the public-school setting at the time.

EHA (1975) guaranteed a free and appropriate public education to each child with a disability in every state and locality across the country. The landmark legislation, EHA, required every state and school district receiving federal funds to find and educate, at the public expense, all handicapped children in its jurisdiction, regardless of the nature or severity of a child’s handicap (34 C.F.R. § 104.33, 2011). EHA 1990 amendments (20 U.S.C. § 1400) changed the name from EHA to IDEA (1990) to support states and localities in protecting the rights of, meeting the individual needs of, and improving the results for infants, toddlers, children, and youth with disabilities and their families. This change was intended to bring about improvements in special education and inclusive education. Then, in 2004 IDEA was retitled IDEIA.

### **Justification of the Study**

The purpose of this qualitative study was to identify inclusive practices, strategies, communication, and professional development (PD) factors in collaborative, co-taught K-12 inclusive classrooms. A gap was addressed in the literature by exploring and investigating the lived experiences of collaborative, co-teaching teams. The significance of studying inclusive practices in the collaborative, co-taught K-12 classroom is to raise awareness about the importance of this kind of teaching strategy for improving the learning environment of all students and increasing academic achievement.

A qualitative research design was chosen to yield a deeper understanding of the lived experiences of the collaborative, co-teachers participating in the study. A demographic survey (Appendix A) was used as a data source. Based on demographic responses, participant interviews were conducted with willing participants identified in the demographic survey that

had taught in a collaborative, co-taught classroom for at least one year, and these interviews served as a second data source. Data were analyzed through deductive coding of the transcribed interviews by the researcher.

### **Conceptual Framework**

As Creswell and Poth (2018) indicated, there are four philosophical assumptions made by researchers when they undertake a qualitative study: ontological, epistemological, axiological, and methodological. This research focused on the ontological and methodological. *Ontological* is defined as “reality is multiple as seen through many views” (p. 20). The ontological axiom is concerned with the form and nature of one’s perceived reality. As themes develop in the findings, the implication of this philosophical assumption was able to report different perspectives. Methodological assumptions occur when a researcher uses inductive logic within a topic’s context and uses an emerging design. Practice for methodological assumption implied that the researcher works with details before generalizations, describes in detail the context of the study, and continually revises questions from experiences in the field. Creswell and Poth (2018) further explained the connection between philosophical assumptions and interpretive frameworks: “Philosophical assumptions are often applied within interpretive frameworks that qualitative researchers use when they conduct a study” (p. 22).

The interpretative frameworks, as described in Creswell and Poth (2018), this study relied on to develop the conceptual framework were social constructivism as well as disability theories. Since collaborative, co-taught inclusive classrooms encompass social justice issues, that is why the social constructivism interpretive framework complemented the disability theories framework. Creswell and Poth’s (2018) comparison of nine conceptual frameworks outlined researcher goals and potential researcher influences, with examples of researcher practices. A re-

created portion of a table titled *Qualitative Inquiry & Research Design* (p. 34) that applied to this study follows (see Table 1).

**Table 1**

*Comparing Interpretive Frameworks*

Interpretive Framework	Possible Researcher Goals	Potential Researcher Influences	Examples of Researcher Practices
Social constructivism	To understand the world in which they live and work	Recognition of background as shaping interpretation	Interprets participants' constructions of meaning in their accounts
Disability theories	To address the meaning of inclusion	Recognition of disability as a dimension of human difference and not as a defect	Employs a disability interpretive lens for informing the research

Creswell and Poth (2018)

This comparison focused on the two interpretive frameworks for conducting a qualitative research study while designing the conceptual framework for the case study. For this study of collaborative, co-teaching partnerships, both social constructivism and disability theories played a vital role in the investigation of lived experiences of those individuals.

When deciding which framework to implement, the five qualitative approaches-narrative research, phenomenological research, grounded theory research, ethnographic research, and case study research-were considered (Creswell & Poth, 2018). The research criteria that best fit this study was case study research. A case study allowed for the development of an in-depth description, and analysis of a case or multiple cases provided an in-depth understanding. The current research, the narrative case study approach, led to identifying individual perspectives on the collaborative, co-taught inclusive classroom. Individual perspectives of collaborative, co-teaching pairs' dynamics such as communication, responsibilities, tasks, and expectations and investigated the strategies that have been implemented in inclusive classrooms investigated. The



strategies to improve inclusive practices of teachers, administrators, and division leaders were identified through the research process.

Following the defined features outlined by Creswell and Poth (2018) stories from individuals through one-on-one interviews as well as focus group interviews were collected. Those were the two types of data collection used. The stories and detailed individuals' perspectives from the interviews helped the researcher identify emerging themes through interaction and dialogue with participants. Interview data assisted in shedding light on the physical, emotional, and social perspectives of the collaborative, co-taught classroom educator. A reflection of the embedded nature of these lived stories within the larger social, cultural, and institutional dimensions allowed for a more complex understanding.

The *case study* research approach is defined (Creswell & Poth, 2018) as “a qualitative approach in which the investigator explores a real-life, contemporary bounded system (a case) or multiple bounded systems (cases) over time, through detailed, in-depth data collection involving multiple sources of information, and reports a case description and case themes” (pp. 96-97). Collaborative, co-taught K-12 public school classrooms in a rural school division in Southwest Virginia were investigated. The parameters for the individuals participating in focus group interviews included teachers with one or more years of experience in an inclusive, collaborative, co-taught K-12 classroom within a rural school division in Southwest Virginia. The qualitative case study developed an in-depth understanding of the perspectives of the collaborative, co-teaching pair focusing on the pair's dynamics such as communication, responsibilities, tasks, and expectations, and further investigated the best practice and strategies that have been implemented in inclusive classrooms. The case study further investigated the strategies that have been implemented in collaborative, co-taught K-12 classrooms of the participants within this one

school division. These findings aided in identifying strategies in inclusive classrooms utilized by teachers and administrators through the research.

The last approach aligned with Hackett et al.'s (2021) research, Design-Based Research (DBR) methodology. DBR strengthened the understanding of the co-teaching context while working in conjunction with the participants. The social phenomenon of co-teaching, according to Hackett et al., was established as a bounded partnership between the co-teaching team. The in-depth team analysis allowed for a holistic understanding of real-life contexts from the perspectives of those teams (Yin, 1989). Figure 1 is based on the research methodology of DBR (Hackett et al., 2021; also, Bell, 2004) and has been adapted to align with the study.

### Figure 1

#### *Design-Based Phases*

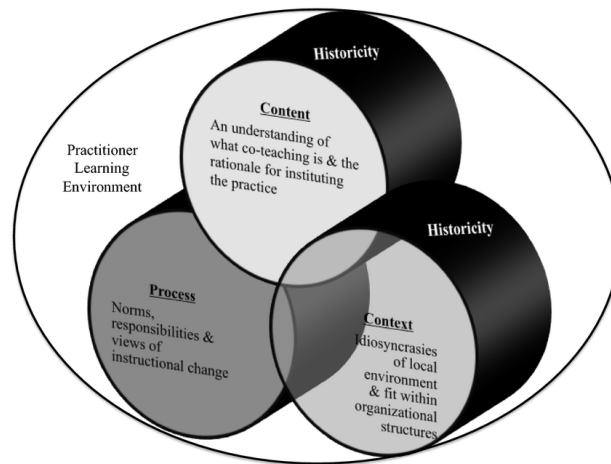
Exploration Phase	Initial Design Phase	Implementation & Iterative Design
<ul style="list-style-type: none"> <li>• Conduct an ethnographic probe into one school division's implementation of collaborative, co-teaching.</li> <li>• Discover the emerging analytic themes.</li> </ul>	<ul style="list-style-type: none"> <li>• Review and analyze literature, both empirical and conceptual, relating to collaborative, co-teaching.</li> <li>• Generate a collaborative, co-teaching implementation framework based on research and exploration phase's emergent themes.</li> <li>• Design and construct collaborative, co-teaching strategies to implement.</li> </ul>	<ul style="list-style-type: none"> <li>• Evince research participants' lived experiences through one-on-one interviews or focus group interviews.</li> <li>• Display findings of collaborative, co-teaching implemented strategies.</li> </ul>

Hackett et al. (2021), also, Bell (2004)

DBR was a multiyear design approach that occurred over three phases: exploration, initial design, and implementation and iterative design. DBR was described as a labor-intensive methodology that was used to address persistent contextualized problems of practice for suitable improvement, innovation, and theory generation. Bell (2004) wrote that DBR was a theoretical

and empirical study of learning within complex educational interventions in everyday settings. The exploration phase was the focus of this research. The focus was primarily on data collection from participant interviews.

Hackett et al. (2021) further outlined the Co-Teaching Implementation Framework (CTIF) as the initial step toward a nuanced theory of co-teaching. CTIF captured dimensions of practice and potential sources of tension co-teachers negotiate while instituting their practice. CTIF represents the co-teaching activity system and sociocultural elements that incorporated organizational and individual histories co-teachers must navigate to make sense of policy change. This framework was more explanatory than predictive; however, understanding the dimensions of practice and potential sources of tension played a vital role in this framework. Three sources of information merged to construct the CTIF: (1) exploration phase data from practitioners, (2) pertinent co-teaching literature, and (3) literature on organizational change, learning, interpersonal risk, and team psychological safety (Hackett et al., 2021). The CTIF paralleled Armenakis and Bedeian's (1999) organizational change framework. Hackett et al. (2021) found three common factors that shaped individuals' reactions to policy change efforts. These factors, content, context, and process merged information from three sources in order to construct this framework. Hackett et al. visually displayed these vital components of CTIF in Figure 2. This representation allowed the incorporation of historicity, which was adapted from Armenakis and Bedeian's (1999) review of the theory and practice of organizational change.

**Figure 2***Co-teaching Implementation Framework Including Historicity*

Hackett et al. (2021)

When the three common factors were reviewed, the process of instructional change questioned traditional professional identities and boundaries. Teaching roles and methods were considerably challenged in the co-teaching dyad (Hackett et al., 2021). Hackett et al.'s research identified that co-teaching instruction may be even more politically charged since inclusive education is designed to improve the historically marginalized group of SWDs. CTIF stated that the process spotlighted co-teaching responsibility to deliberately disrupt traditionally didactic teaching methods in order to incorporate more inclusive and responsive instruction.

Historicity was an overlying theme due to the social injustice that SWDs have faced. For deeper understanding the analysis of the localized history of co-teaching as well as contextual norms, language, and policy was incorporated. Hackett et. al (2021) further expressed that “for co-teaching, unequal power relations tend to be influenced by the historic segregation of children with learning differences and the special educators who have served them” (p. 122).

Administrators that adhered to historically traditional roles reinforced inequalities between

SWDs and their peers in addition to the educators who served them. All common themes were kept in mind when developing the interview protocol.

### **Definition of Terms**

Common vocabulary and conceptual framework were established by the following terms and definitions cited from current literature relating to the collaborative, co-teaching model of instruction.

*Collaboration* -Collaboration “allows for varied expertise and perspectives about a student to be shared among those responsible for the student’s learning and well-being. This collective expertise provides collaborators with a more comprehensive understanding of each student’s needs, which can be used to more effectively plan and implement instruction and services” (McLeskey, 2017). Collaboration “requires shared thinking between the general educator and the special educator”. Jones et al. (2008) also stated, “Collaborative teaching refers to an educational approach in which general and special educators work in a [supportive] and coordinated, fashion to jointly teach an academically and behaviorally heterogeneous group of students in educationally integrated settings” (pp. 203-208).

*Co-teaching* -Co-teaching (or collaborative teaching) “is a coordinated instructional practice in which two or more educators simultaneously work with a heterogeneous group of students in a general education classroom” (Beninghof, 2020, p. 9). Hentz (2018) defines co-teaching as “two or more certified teachers sharing the intellectual expertise and instructional responsibly to create a learning environment conducive to positive student outcomes and teacher success” (2018, p. 1). Friend et al. (2010) stated

the partnering of a general education teacher and a special education teacher or another

specialist to jointly deliver instruction to a diverse group of students, including those with disabilities, or other special needs, in a general education setting and in a way that flexibly and deliberately meets their learning needs. (p. 11)

Hackett et al. (2021) defined the social phenomena of co-teaching as a bounded partnership between the co-teaching team. According to Dieker and Murawski (2003), co-teaching involves two or more teachers who are equal in status working together in the classroom to provide instruction. Cook and Friend (1995) defined 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).

*Design-based research (DBR)*-Hackett et al. (2021) described DBR as a labor-intensive methodology that was used to address persistent contextualized problems of practice for suitable improvement, innovation, and theory generation. Bell (2004) wrote that DBR was a theoretical and empirical study of learning within complex educational interventions in everyday settings.

*Differentiated instruction (DI)*- "Differentiated instruction is a teaching approach that tailors instruction to all students' learning needs. All the students have the same learning goal. But the instruction varies based on students' interests, preferences, strengths, and struggles" (Tucker, n.d.). Geel et al. (2019) pointed out that “teachers should not use a one-size-fits-all basis but differentiate instruction” (p. 51).

*Inclusive setting*- An inclusive setting is a classroom where SWD are educated alongside their general education peers (Cook & Friend, 1995).

An inclusive classroom climate refers to an environment where all students feel supported intellectually and academically and are extended a sense of belonging in the classroom regardless of identity, learning preferences, or education. Such environments

are sustained when instructors and students work together for thoughtfulness, respect, and academic excellence, and these are key to encouraging the academic success of all students. Research indicates that many students may be more likely to prosper academically in settings with more collaborative modes of learning that acknowledge students' firsthand experiences. (Yale University, 2017)

*Least restrictive environment*-Finding a universal, well-defined definition for inclusion does not occur in the literature. This is affirmed by several sources. For example, the Virginia Department of Education's (VDOE, 2019) Department of Special Education and Student Services states that there is no one universally accepted definition of inclusion; the meaning varies regarding the context of theory and practice. While the Individuals with Disabilities Education Act (IDEA, 1990) and the Regulations Governing Special Education Programs for Children with Disabilities in Virginia (VDOE, 2010) do not use or define the term inclusion, they refer to the regulations that address the least restrictive environment (LRE). Inclusion is just one way that LRE is achieved. Nonetheless, the Virginia Board for People with Disabilities (2017) shared that within the context of the LRE, IDEA (1990) creates "a statutory preference for the provision of educational services to SWD in the regular education classroom," which "can only be overridden when education cannot be satisfactorily provided in that setting, even with the use of supplementary aids and services" (p. 1).

*Inclusion*-The Virginia Board for People with Disabilities (VBPD) report entitled *Assessment of Virginia's Disability Services System: Education (2017)*, noted that inclusion is often used to refer not only to the physical presence of a child with a disability in a regular education classroom but also to the effective delivery of services in that

classroom in a way that allows the child with a disability to be an active participant in the classroom community. (p. 1)

VBPD's (2017) definition assists in dissuading inclusion from being only considered as the mere physical placement of a child in a classroom. Instead, inclusive education should ensure that SWDs are active, engaged members of the classroom community.

### **Organization of Study**

This study contains five chapters. Chapter 1 introduces the topic of the study, effective practices, and strategies that are implemented by teachers in collaborative, co-taught K-12 classrooms. Chapter 2 presents a comprehensive review of the literature regarding inclusive practices in the collaborative, co-taught K-12 classroom. The description of the selection and setting of participants, procedures of data collection, design and validity, interview protocol, confidentiality and ethical treatment of data, and data analysis are discussed in Chapter 3. Chapter 4 details teachers' perspectives derived from the focus group or one-on-one interviews focusing on the pairs' communication, responsibilities, and expectations. Chapter 5 contains the presentation of the findings, conclusions, implications, and recommendations for future studies.

### **Summary**

Chapter 1 provided a synopsis of the study. Additionally, the problem, significance and justification, and conceptual framework of the study were included. Definitions and key terms added clarity to the research. Reviewed research indicated the importance of participants' perceptions in identifying strategies, communication, and PD factors that impact co-teaching collaborations in the K-12 inclusion classroom. Chapter 2 provides a review of relevant literature.



## **Chapter Two: A Review of the Literature**

### **Introduction**

The topic of this study is inclusive strategies utilized by teachers in collaborative, co-taught K-12 classrooms. A gap was addressed in the literature by exploring and investigating the lived experiences of collaborative, co-teaching teams. Studying inclusive practices in the collaborative, co-taught K-12 classroom is important for raising awareness about the importance of this kind of teacher relationship for improving the learning environment of all students and increasing academic achievement. The parameters of this search were narrowed to target specific areas: inclusive education relative to collaborative, co-teaching strategies in K-12 education in the US.

The five areas of investigation for this literature review were (1) definitions of inclusion, (2) laws and policies governing inclusive education, (3) inclusive education in K-12 schools, (4) inclusive education strategies in K-12 schools, and (5) the role of leadership in developing an inclusive K-12 school. A synthesis of common themes in K-12 inclusive practices for students with disabilities (SWD) analyzed past methodologies and investigated previous research techniques that occurred. The literature review that follows strives to be comprehensive, it is not exhaustive due to the large amount of research conducted on this topic over the last 30 years.

### **Inclusion and Exclusion Criteria**

Between August 2021 and July 2022 Virginia Tech (VT) Library's Databases were searched on the topic of inclusion using the following keywords:

- Inclusion education
- Collaborative strategies/practices
- K-12 inclusive education

- K-12 inclusion classroom in the United States
- Co-teaching best practices
- Co-teaching strategies
- Co-teaching education in practice

Google Scholar was searched as well. The parameters were narrowed to fit the target areas of investigation using the following keywords: *collaboration, collaborative strategies/practices, co-teaching, inclusion, inclusive, K-12 education, leadership, United States*. All research that was included in the search was peer-reviewed between 2000 and 2022. The following are the result totals for the databases used.

- VT Library Databases
  - 175 (peer-reviewed)
  - VTech Works
    - 531 (peer-reviewed)
  - EDTs: Virginia Tech Electronic Theses and Dissertations
    - 12 (peer-reviewed)
- Google Scholar
  - 440 (peer-reviewed)
- Educational Research Information Center [ERIC]
  - 10 sources (peer-reviewed; full-text)

A total of 175 abstracts were read, and 80 articles/sources were read in their entirety, including the Virginia Department of Education (VDOE) sources, US Department of Education (USDOE) sources, and additional reports from Google Scholar. These searches were conducted following consultation with the dissertation committee chair/advisor, Dr. Mullen, as well as the

Virginia Tech Online and Graduate Engagement Librarian on how to conduct searches of the literature. The process used was threefold. First, abstracts were analyzed to determine if the information was relevant to the topic. Next, once an article was determined to be salient, it was analyzed. Last, the references cited for each salient source were then examined to assist in identifying further sources. All salient sources have been compiled in Appendix B to assist with making connections and aligning common themes and methods. It reflects the salient sources that were read. The table includes the purpose and goal of the sources, key terms that were defined and used, and the types of methods and data sources that each article encompassed. Also included were challenges faced by stakeholders. Central themes from the sources are listed in the last column. Appendix B gives a snapshot of the key findings. This table was used to align sources with the corresponding topical areas: (1) definitions of inclusion, (2) laws and policies governing inclusive education, (3) inclusive education in K-12 schools, (4) inclusive education strategies in K-12 schools, and (5) the role of leadership in developing an inclusive K-12 school. This table organized key ideas of inclusive education in one central location for easy reference and follows alphabetical order.

### **Definitions of Inclusion, Co-teaching, and Collaboration**

When first investigating inclusive education, one must start with defining key terminology used in the literature. A universal, well-defined definition for *inclusion* did not occur in the literature. This fact was affirmed by several salient sources. For example, the VDOE's Department of Special Education and Student Services stated that currently, there was not one universally accepted definition of inclusion; and varied regarding the context of theory and practice (VDOE, 2019), while the Individuals with Disabilities Education Act (IDEA) (1990) and the Virginia Regulations Governing Programs for Students with Disabilities (VDOE,

2010) did not use or define the term inclusion. They referred to the regulations that address the least restrictive environment (LRE). Inclusion is just one way that LRE is achieved.

In context to LRE and inclusion, in the 2017 Annual Report to the Governor by the Virginia Board for People with Disabilities (VBPD, 2017), the Board acknowledged the difficulty of defining inclusion. Nonetheless, the VBPD shared that within the context of the LRE, IDEA created

a statutory preference for the provision of educational services to SWD in the regular education classroom. This statutory preference can only be overridden when education cannot be satisfactorily provided in that setting, even with the use of supplementary aids and services. (p. 1)

In addition, the VBPD report (2017) entitled *Assessment of Virginia's Disability Services System: Education* noted that inclusion

is often used to refer not only to the physical presence of a child with a disability in a regular education classroom but also to the effective delivery of services in that classroom in a way that allows the child with a disability to be an active participant in the classroom community. (2017, p. 1; VDOE, 2019, 8)

This definition noted that inclusion was not merely a physical placement of a child in a general education classroom. Instead, it ensures that SWDs are active, engaged members of the classroom community.

When looking at *co-teaching* in the literature, there were clear definitions. Co-teaching is an instrument for allowing two educators, both general education and special education, to share skill sets in a coordinated instructional practice for the benefit of all students (Beninghof, 2020). Hentz (2018) defines co-teaching as “two or more certified teachers sharing the intellectual

expertise and instructional responsibility to create a learning environment conducive to positive student outcomes and teacher success” (p. 1). While Friend et al. (2010) defined co-teaching as the “partnering of a general education teacher and a special education teacher or another specialist to jointly deliver instruction to a diverse group of students, including those with disabilities, or other special needs, in a general education setting and in a way that flexibly and deliberately meets their learning needs” (p. 11). Hackett et al. (2021) defined the social phenomenon of co-teaching as a bounded partnership between the co-teaching team. Table 2 outlines Hentz’s (2018) benefits of co-teaching for both teachers and students.

**Table 2**

*Benefits of Co-Teaching*

For Teachers	For Students
Integrate specialized skills to benefit all learners	Achievement gains given appropriate support and access to the curriculum
Learn from the expertise of other educators	Specially designed instruction for positive outcomes
Deliver instruction using flexible instructional grouping	Access to the instruction delivered with reduced student-teacher ratio and in small-group settings
Individualize instruction based on all students’ needs	Increased interaction time with teachers
Develop a greater understanding of content knowledge and specially designed instruction	Access to general education classroom with the support of two professionals

Hentz (2018)

According to Dieker and Murawski (2003), co-teaching involves two or more teachers who are equal in status working together in the classroom to provide instruction; Cook and Friend (1995) defined 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).

Co-teaching, as indicated by Friend (2014), is unique as a service delivery option. According to Friend, this option is two-fold. Regarding SWDs in public schools, for many years other service approaches were outlined in federal special education legislation. Though the co-teaching model has existed for the last 30 years, it is not addressed in federal special education law. Co-

teaching has evolved rapidly in schools due to the growing expectation that SWDs should be educated in the general education setting.

Collaboration allows expertise and perspectives to be shared between the general educator and the special educator for the student's learning and well-being (McLeskey, 2017; Jones et al., 2008). Jones et al. (2008) continue by pointing out that collaborative teaching is an educational approach where general and special educators work collaboratively in a supportive and coordinated manner to teach a diverse student body. There are many areas for educators to consider when addressing inclusive education. The first is to become familiar with laws and policies that shape and govern K-12 inclusive education.

### **Laws and Policies Governing K-12 Inclusive Education**

To understand inclusive education, it is necessary to know the laws and policies that shape and govern K-12 inclusive education. As stated in the *VDOE's K-12 Inclusive Practices Guide* (2019), school divisions need to keep in mind that according to the regulations, "LRE means that school divisions should educate SWDs in the regular classroom in the school they would attend if not disabled" (p. 90). This guide states that the school division must provide appropriate supplementary aids and services to educate SWDs with their nondisabled peers unless a student's IEP states otherwise.

The passage of Public Law 94-142, also recognized as the Education for All Handicapped Children Act (EAHCA or EHA, 1975), ensured that all school-aged children with disabilities were guaranteed a free and appropriate public education. From this law's inception, it was anticipated to have a positive impact on millions of children with disabilities in the US. EHA mandated that all SWDs, regardless of the severity, be provided with "a free and appropriate education in the least restrictive environment (LRE)" (Dudley-Marling & Burns, 2014, p. 14;

Osgood, 2005, p. 105; P.L. 94-142, 1975). EHA's focus was to ensure that all identified SWDs were guaranteed an education appropriate to their individual needs. EHA led policymakers to the eventual creation of Public Law 108-446, or the Individuals with Disabilities Education Improvement Act (IDEIA, 2004). EHA would play a pivotal role in special education policies and governance in every state and locality across the US: "Prior to the enactment of the landmark EHA (1975), only 1 in 5 SWD in the US were educated in public schools" (Dudley-Marling & Burns, 2014, p. 14). This indicated that in 2014 only 20% of SWDs were being educated in the public-school setting at that time. Perceptions and past behaviors before the EHA left educators with challenges to address the academic needs of SWDs.

Educational history and legislative mandates that formed the current conceptual model for providing services to SWDs followed the adoption of EHA (1975), and, currently, the IDEIA (2004). IDEIA has contributed to improved results for SWD over the last quarter of the 20th century and through the first decade of the 21st century (US Department of Education, 2010). Brinkmann (2012) indicated that the "need for more collaboration and co-teaching emerged from the standards-based and accountability movement because of the No Child Left Behind (NCLB, 2002) and IDEIA legislation" (p. ii). These landmark laws support states and localities in protecting rights, meeting individual needs, and improving results for SWDs (US Department of Education, 2010). Further, Brinkmann (2012) indicated that there was an effort placed on the development programs to meet SWDs' needs (also cited by the US Department of Education, 2010).

Initiatives in legislation impacted education for SWD in the public-school setting (Brinkmann, 2012). For example, IDEIA mandated SWD should have access to the general education curriculum alongside their peers in their LRE. Further, NCLB (2002) legislation

impacted the level of achievement expected for all students. Thus, the rigor for all students evolved: “When NCLB (2002) requirements intersect with the traditional principles on which IDEIA (2004) [was] based, a strong component of a rationale for co-teaching [was] established” (Brinkmann, 2012, p. 22; Friend, 2008, p. 37). Both NCLB and IDEIA legislation guided localities to ensure that SWDs received instruction in their LRE; therefore, more SWDs were being educated in the general education classrooms with their non-disabled peers. Thus, the prevalence of the collaborative, co-taught classroom model has increased over the last 20 years.

When addressing SWDs and their access to the same curriculum as their peers without disabilities, social injustice problems can result. As Dudley-Marling and Burns (2014) pointed out, special education is encumbered by assumptions of normality and abnormality. They continued by stating the assumption that human traits and abilities tend, “to cluster around a mean of normality” (p. 18). The need for success in school, as well as in the world, gave rise to schools having to focus on these presumed deficits and identify approaches to reduce the discrepancies. Perceptions and past behaviors before the EHA (1975) left educators with more challenges to overcome as they addressed the academic needs of SWD. The viewpoints and assumptions of normality, such as rigor and accessibility to the general education curriculum for SWD, needed to change to bring about a more inclusive environment for all children with disabilities.

With these legislative changes, educators faced challenges enacting effective practices to address the academic needs of SWDs, especially in schools with limited resources (Virginia Department of Education [VDOE], 2019). Federal and state regulations on inclusive education encompass practices that concentrate on creating meaningful access to instruction for all students across academic, social, and physical environments: “Inclusive education has proven effective in



promoting positive student outcomes through strategies that focus on fully engaging all students regardless of their disabilities or other learning challenges” (p. 5). According to the IDEIA (2004), “Extensive research and experience have demonstrated that the education of children with disabilities can be made more effective with maintaining high expectations for students while ensuring their access to the general education curriculum in the regular classroom as appropriate” (as cited by VDOE, 2019, p. 5). The research has demonstrated that the education of SWDs can be more effective when high expectations of academic success are consistent.

Perceptions and past behaviors concerning SWDs education before the EHA (1975) left educators with challenges to address the academic needs of SWDs. From 1975 to 2001, educational practices for SWDs were guided by the federal education and civil rights laws through IDEIA 2004 and Section 504 of the Rehabilitation Act of 1973. However, the reauthorization of the Elementary and Secondary Education Act (ESEA) in 2001 (also known as No Child Left Behind [NCLB]) drastically changed the service delivery options selected to provide services to SWDs. Beninghof (2020) stated that “the advent of the NCLB Act of 2001 increased the urgency of co-teaching adoption” (p. 177). NCBL and the reauthorization of IDEA “set requirements for high standards and performance for all students” (p. 177). School districts moved to co-teaching as a solution to the mandate that all students have access to the general education curriculum as highly qualified teachers. This forced special education departments to reevaluate service delivery models thus, leading to more districts' selection to adopt co-teaching. The ESEA now mandates critical elements of the educational practices for all students including SWDs. The provisions of ESEA, along with the reauthorized IDEIA in 2004, were aligned with the broader laws (Friend, 2014). Friend stated that the ESEA required students to be taught using methods that were validated through research, include nearly all students in state-mandated

testing, hold school districts accountable for the quality of education delivered to students, and provide parents with options for “ensuring that their children are able to reach the increasingly high achievement standards being set” (p. 26). In 2015, NCLB was replaced by Every Student Succeeds Act (ESSA). The focus on access to rigorous standards for all students continues to date (Beninghof, 2020). In the decade since ESEA and IDEA were passed, several policy decisions at both the state and federal levels have profoundly impacted educational practices (Friend, 2014).

There are two reasons, according to Bateman and Yell (2019), why IDEA has remained profoundly impactful in education. First, parts of the IDEA are reauthorized every 5 to 6 years, which allows Congress to revisit laws to reauthorize various activities and programs established in the IDEA. One example is “Part D of the IDEA authorized the Office of Special education and Rehabilitative Services (OSERS) in the USDOE to spend federal funds on certain activities” (p. 3). Reauthorizations allow OSERS to continue to allocate federal funds to these activities. Often during these reauthorization times, Congress amends the law. Therefore, as Bateman and Yell (2019) continue, teachers and administrators need to stay current on any amendments made. Second, disputes between a student’s parents and school personnel occur when a student’s special education plan is not settled to either party’s satisfaction.

In Bateman and Yell (2019), two approaches are discussed concerning Congressional efforts to address the educational needs of SWDs:

- (1) To protect SWD from discrimination as Congress had done in 1964 with its passing of Title VI of the Civil Rights Act to protect persons who were discriminated against because of race, color, creed, or national origin, and again with the passage of Title IX of the educational amendments of 1972 which protected persons who were

discriminated against because of sex. Bateman and Yell further emphasized, ‘In 1973 Congress passed Section 504 of the Rehabilitation Act (Section 504), which protected persons with disabilities from discrimination based on their disability’ (p. 4).

- (2) A funding bill was passed that combined an education bill of rights for SWD with the promise of federal financial incentives for the state. This law is known as the Education for All Handicapped Children Act (Public Law 94-142), or the EHA of 1975.

With these changes, educators faced challenges finding effective practices to address the academic needs of SWDs, especially in schools with limited resources (VDOE, 2019). Federal and state regulations on inclusive education encompassed practices that concentrated on creating meaningful access to instruction for all students across academic, social, and physical environments (VDOE). The VDOE stated, “Inclusive education has proven effective in promoting positive student outcomes through strategies that focus on fully engaging all students regardless of their disabilities or other learning challenges” (p. 5). According to the VDOE (2019), IDEIA in 2004 stated, “Extensive research and experience have demonstrated that the education of children with disabilities can be made more effective by maintaining high expectations for students while ensuring their access to the general education curriculum in the regular classroom as appropriate” (p. 5). This shows that the research has demonstrated that the education of SWDs can be more effective when high expectations of academic success are consistent.

Administrators and educators need to recognize that the key to understanding Section 504 is to acknowledge that it is a civil rights law, which prohibits discrimination against persons with disabilities in programs that receive federal financial assistance (Bateman & Yell, 2019).

Therefore, the law applies to public elementary and secondary schools. Bateman and Yell (2019) comment that “according to the United States Supreme Court discrimination that violates Section 504 often is not deliberate but is the result of thoughtlessness, neglect, and indifference” (pp. 4-5). Under Section 504 administrators, teachers, school psychologists, and other school personnel are required to identify SWDs and afford these students educational opportunities equivalent to those received by their non-disabled peers. Bateman and Yell (2019) stated, “According to IDEA, placement decisions for students in special education must be made by persons (a) knowledgeable of the provisions of the law, (b) familiar with a student’s evaluation data, and (c) aware of the various placement options in the student’s school district” (p. 11). These placement decisions must be made in agreement with the LRE delegated in the IDEA, which “requires that SWD be educated alongside their nondisabled peers when possible” (Bateman & Yell, 2019, p. 11). Hence, school district administrators, teachers, and support staff must understand their responsibilities under Section 504 and IDEA.

### **Collaborative, Co-teaching Education in K-12 Schools**

For many years, according to Benginghof (2020), co-teaching has occurred in some schools. Forward thinkers in the field of education discerned early the need for SWDs to have access to the general education curriculum in tandem with an educator trained in specially designed instruction (i.e., a special education teacher). These special education teachers have a way of providing a different lens than their general education counterparts, and they have the ability to “look at specific tasks, break them down into their smallest components, diagnose difficulties, and brainstorm unique instructional solutions” (p. 177). Special education teachers use their expertise to develop a related strategy that can be incorporated into the general education content so that all students benefit.

According to Hentz (2018), co-teaching pairs must have a structure and format for planning. Having well-planned lessons is essential to their being effective. She outlined the BASICS strategy for co-planning for collaborative, co-teaching pairs to provide support in creating lessons that meet the needs of a diverse student population. This strategy contains six parts:

- Big ideas (e.g., essential questions, learning objectives, and curricular standards) are identified by the general education teacher.
- Analyze student data (such as IEPs, accommodations, and specially designed instruction) and identify the needs to guide instructional planning.
- Strategies are determined based on the essential big ideas and the analysis of student data.
- Integrate the co-teaching approaches required for lessons.
- Collaborate after the lesson ‘to reflect on the lesson structure, individual student achievement, and the effectiveness of each partner’s roles and responsibilities during the lesson’ (p. 2).
- Strategize to plan the next lessons to improve the student outcomes by using both teachers’ expertise along with data to inform instruction: ‘Both professionals must be willing to incorporate instructional techniques, activities, and strategies into each lesson to provide improved student outcomes’ (p. 2).

The BASICS strategy along with co-planning assists collaborative, co-teaching pairs to both be active participants in the inclusive classroom. When planning collaboratively, Hentz (2018), acknowledges that pairs need to know what co-teaching models work best for each lesson and grouping.

Beninghof (2020) outlined the best models that partnerships may utilize. She states that strong partnerships blend all the models of co-teaching together to serve students. Table 3 displays Beninghof's synopsis of co-teaching models. There are two primary models of co-teaching (green shaded rows): Duet and Map and Navigate. There are three approaches (blue shaded rows): Adding, Transforming, and Complementing. The models are further broken down into two types of grouping (yellow shaded roles): Readiness Groups and Mixed-Readiness groups. Beninghof's Map and Navigate model is the most realistic and practical since many special education teachers do not have the means of working with only one co-teacher. Special education teachers that work with multiple teachers find it difficult to participate in the amount of co-planning that the Duet Model requires. With the Map and Navigate Model the general education teacher does the majority of the planning, the mapping portion, while the special education teacher focuses energy on determining how to specialize delivery, the navigate portion.

**Table 3***Synopsis of Co-Teaching Models*

Co-Teaching Model	Description	Pros	Cons
Duet	Both teachers share the entire instructional process.	Most integrated for students Fully utilizes all expertise	Most time intensive
Map and Navigate	Gen. Ed. Teacher does up-front planning. Sp. Ed teacher is fully involved in daily planning, implementation, and assessment.	Both teachers engage in most phases of instruction	Less input in planning for differentiation and specially designed instruction
Adding	One teacher leads while the other teacher actively adds visually, verbally, or in other ways to enhance instruction.	No co-planning times Easier to implement	Can step on toes Does not fully utilize expertise
Transforming	Teachers consider ways to adapt the traditional approach to address readiness levels, learning preferences, and student interests.	Ensures that all levels and preferences are incorporated into instruction	Assumes that teachers will tolerate activity and variation in the lesson
Complementing	Gen. Ed. Teachers focus on the curriculum. The specialist focuses on access or complementary skills and special education strategies through mini-lessons or small-group instruction.	Good for related professionals. Focused expertise. Sets up an expectation that special education will be provided in the general education setting	May slow down the pacing
Readiness Groups	Students are grouped according to readiness level for specific skills and instructed at their level.	Allows for intentional enrichment and support	Less exposure to appropriate role models or diversity may have stigma
Mixed-Readiness Groups	Students in mixed-readiness groups are working at different levels and paces.	Peer role models for language, cognition, or behavior. Opportunity to reinforce learning by peer tutoring	The learning level may be too high or too low

Benginghof (2020)

Inclusive practices within K-12 schools vary. Within the US, inclusion is defined as SWDs spending more than 80% of their school day in regular education settings (Baglieri et al., 2011). Liasidou (2012) pointed out that the inclusion movement is about the rights of SWDs—all children—to be educated in regular education settings alongside their peers. This focus on rights is a central theme of inclusive education. Orr (2019) maintained that “despite legislation and the best efforts of special educators, SWDs continue to be segregated from the general education curriculum and classroom for a majority or part of the school day” (p. 228). This showed as a nation, educators have made progress; however, educators still have not fully included SWDs in the same academic setting as their peers. Completed research has investigated inclusive practices in education.

First, Bondie et. al (2019) analyzed 28 US-based research studies from 2001 to 2015. They examined changes in teacher practices dealing with frameworks and theories that supported and defined differentiated instruction (DI). They further discussed the operationalization of DI in

the classroom as well as reported barriers and facilitators of DI. A highlighted number of gaps in the literature on DI were noted: “(a) inconsistent theoretical framing and subsequent operationalization of DI, including (b) uneven focus in terms of student populations, (c) and overall lack of methodological rigor in studies of DI that explore its effects on student outcomes” (p. 356).

Second, Bondie et al.’s (2019) research included an in-depth literature review that included 28 studies. These studies included peer-reviewed journal articles published between the years 2001 to 2015 that were on the elementary and middle school level. This in-depth review concluded that gaps were present in the literature on differentiated instruction (DI). One was the inconsistent theoretical framing and operationalization of DI. Another inconsistency was an uneven focus in terms of student populations. Bondie et al. (2019) also discussed the overall lack of methodological rigor in studies of DI that investigate the effects on student outcomes.

Third, when educators oversee students that have learning disabilities in the classroom, many agree that the regular classroom is the appropriate placement for SWDs if the students can function in the regular classroom without considerably altering the regular education curriculum or student expectations (Dudley-Marling & Burns, 2014; Scanlon & Baker, 2012). These educators argued that the inclusion of SWDs in classrooms may negatively affect the education of SWDs if disproportionate attention from teachers is given (Dudley-Marling & Burns, 2014, p. 20; Grider, 1995).

Furthermore, Devore et al. (2011) provided a detailed example of a typical deficit-based inclusive process in their study of one preschool child’s experience with Individualized Education Plans (IEP) and LREs. They emphasized the need for buy-in from all the parties involved with a focus on the need to trust each other’s expertise. The process was found to be



most effective when four key steps were followed: (1) Each individual on the IEP team needed to build relationships while each member's roles and responsibilities were clearly defined. (2) The team needed to collect data to assess each student's current abilities. (3) Based on the data collected the team needed to establish functional goals and strategies to make the student progress. (4) The team needed to apply these strategies while monitoring student progress.

Lastly, through strong IEP relationships, data collection of student abilities, and established functional goals and strategies based on data, the student's education in the inclusive setting introduced SWDs into the community in a gradual fashion by supporting their skills in the LRE setting. Educators must make sure they are designing, implementing, and adjusting a specialized curriculum, as well as measuring improvements in their behavior over time (Devore et al., 2011; Dudley-Marling & Burns, 2014). Furthermore, this process emphasized the use of scientifically based best practices research (Anastasiou & Kaffman, 2011; Dudley-Marling & Burns, 2014).

### **Collaborative, Co-teaching Strategies in K-12 Schools**

When looking at defining co-teaching approaches, Hentz (2018) noted that large-group and small-group instruction can have a substantial influence on student achievement. Each of the approaches outlined was said to be effective in different classroom situations and is meant to be flexible and used interchangeably while individualizing student learning and maximizing engagement. There also needs to be an emphasis on optimizing each teacher's expertise to meet individual student needs. Table 4 delineates the approaches discussed by Hentz (2018) and includes not only what the approach is but also the benefit and tips for each.

**Table 4***Co-teaching Approaches*

Approach	Benefit	Tips
One Teach, One Observe/Assist/Support	Learners have a professional to support them during the instructional process.	<ul style="list-style-type: none"> <li>• This approach is best used when one professional has particular expertise for the lesson or when students' work requires close monitoring.</li> <li>• Explicitly communicate roles and responsibilities for each teacher to ensure parity.</li> <li>• The supportive co-teacher may collect data and provide individual guided practice as needed for student success.</li> <li>• Switch roles from "sage on the stage" to "guide on the side during the lesson.</li> <li>• If this approach is used daily, reconsider if two professionals are required to accomplish the instructional goals of the class.</li> </ul>
Team Teaching	Working as a team allows both professionals to share their instructional strategies and techniques throughout the lesson.	<ul style="list-style-type: none"> <li>• This approach should be used on a limited basis and is best for debating topics, modeling collaboration, and sharing enthusiasm for the lesson.</li> <li>• Be aware of teacher talk versus student talk.</li> <li>• Co-teachers should feel comfortable sharing their expertise and speaking freely during large group instruction.</li> <li>• Integrating humor and modeling collaborative dialogue and think-aloud can enhance the instruction.</li> <li>• Co-teachers may transition into another approach based on the students' needs during large group instruction.</li> </ul>
Parallel Teaching	The reduction in the student-to-teacher ratio provides increased opportunities for discussion.	<ul style="list-style-type: none"> <li>• Both professionals must have content or skill knowledge and comfort with the instructional content and process.</li> <li>• Strategically position the groups so that co-teachers can use nonverbal cues for time and noise-level monitoring as needed for instruction to occur simultaneously.</li> <li>• Instructional content and strategies must be planned to address access points to the curriculum for all students.</li> <li>• Be sure to use flexible grouping to avoid creating a class within a class.</li> <li>• This approach allows learners to have different perspectives on the same topic or skill.</li> </ul>
Alternative Teaching	Co-teachers can conference with students and can collect data on student progress toward specific skill mastery.	<ul style="list-style-type: none"> <li>• Be sure not to use this approach during core instruction of content.</li> <li>• Leaning the task may take a few minutes or most of the period, depending on the learners' needs and skills.</li> <li>• The small-group instruction could be for preteaching, reteaching, reviewing, extending, interviewing, or nurturing positive social skills.</li> <li>• Both educators should occupy the alternative role during instruction based on expertise.</li> <li>• This approach is not intended to create a class within a class and works best if all students are provided with small-group instruction at some point during the lesson.</li> </ul>
Station Teaching	Each professional has equal status and is given the opportunity to provide students with individualized instruction.	<ul style="list-style-type: none"> <li>• The physical arrangement should take into consideration the movement and noise level of each activity.</li> <li>• Instruction cannot be sequential; the stations must be able to be completed in any order.</li> <li>• The special educators can integrate the specially designed instruction, accommodations, and modifications into content taught at the station to individualize instruction.</li> <li>• This approach allows for differentiation and tiered learning.</li> <li>• Timing and voice volume must be considered during the planning process.</li> </ul>

Hentz (2018)

It was noted that the One Teach, One Observe/Assist/Support and Team Teaching are used for large group instruction with support, while Parallel Teaching, Alternative Teaching, and

Station Teaching allow for “small-group instruction to meet individualized student needs while integrating the specifically designed instruction for positive student outcomes” (p. 3).

Inclusive education strategies in K-12 schools vary in the literature. Austin (2001) assessed 139 collaborative K-12 teachers in his study from nine school districts in northern New Jersey. As determined by school data provided by the districts, each employed a minimum of six collaborative teaching pairs. The inclusion model was established and teachers that participated had to have collaborated for at least one semester. Results from Austin’s *Perceptions of Co-Teaching Survey* uncovered that only 28% of general education participants and 27% of special education participants agreed to their inclusive classroom teaching assignments. Thus, the majority of 139 participants were not given a choice about their assignment. Out of the total participants, 66.2% represented collaborative teaching pairs. From this respondent pool, 12 co-teachers were interviewed. The 12 willing interviewees were randomly selected to participate in the follow-up interview. Data findings revealed that the co-teachers found the experience to have “considered...to have contributed positively to their PD” (p. 250). The special education co-teachers from the 12 interviewees mentioned growth in content knowledge while general education co-teachers commented on the advantages of the special education teachers’ skills in classroom management and curriculum adaptation.

Austin’s (2001) study is a salient source for this qualitative research study due to the correlations. Though his was conducted in 2001, it is valuable to demonstrate the similarities in these research findings 21 years later. Austin’s study indicated that collaborative, co-teaching partners valued shared classroom management and instructional duties containing established and maintained specific areas of responsibility. However, these partners did not share these responsibilities in practice. the majority of teachers that were interviewed conveyed that the

collaborative teaching strategies were effective in educating all students. There are several points that Austin observed from his results. One detailed benefit was the reduced student-teacher ratio. Austin also noted that having another teacher's expertise and perspective were beneficial. The value of remedial strategies and review allowed all students, not just those with disabilities, to gain an understanding of the learning difficulties they may face.

Orr's (2009) interview-based study explored new special educators' lived experiences. She selected 15 participants for her sampling, which included 14 females and one male, all of whom were graduates of the same Midwestern University. She reported that "all 15 co-researchers who met the criteria agreed to participate in the study, thereby creating a purposive criterion sample" (pp. 230-231). Orr interviewed each co-researcher asking about "(a) the inclusionary practices of their schools, (b) the barriers to inclusion they have observed, and (c) any 'inclusion-supportive' practices, pedagogies, or structures present within their teaching setting" (p. 231). Out of the 15 participants, eight taught in a setting where SWDs spent most of the school day in general education classes. Of those eight, four participants were actively co-teaching with a general education teacher for at least part of the day. Even though inclusion practices were becoming more commonplace in education, two participants expressed their feelings of unpreparedness due to the lack of in-depth instruction during their teacher preparation programs.

Orr (2009) remarked that even in more inclusive settings, "co-researchers found a number of barriers to the practice of inclusion" (p. 232). Negative attitudes of general education teachers were the most frequently mentioned barrier. Next, the lack of knowledge of inclusionary practices from both the general education and special education teachers was noted. Co-

researchers even stated that they questioned their abilities to successfully implement inclusion due to their lack of knowledge.

Murray's (2009) study surveyed a small rural school district seeking out current research that indicated the correlation between the training teachers received and the willingness of teachers to include SWD. The purpose of Murray's survey was to determine, "how teachers' background, training, and support shape their views of teaching SWDs" (pp. 14-15). The survey was sent electronically to general education teachers throughout all grade levels in a small, rural school district. It was noted that this school district was inclusive and the majority of SWDs were mainstreamed in general education classes with varying levels of support provided by the special education department. Due to the anonymity of the electronically completed survey, Murray was not able to determine the exact grade/subject respondents taught. The survey Murray sent out consisted of six short-answer questions; ten surveys were returned within the time allocated in the form of e-mail or anonymous hard copy through district mail. Murray's survey results supported the current research indicating the correlation between training and education of the teaching staff and the willingness of the teachers to educate SWDs inclusively.

Murray's (2009) research showed that 80% of the respondents indicated having positive feelings toward instructing all children. Those that did respond within that 80% (three teachers) did mention that inclusion of all students was fine, "as long as there [was] support of a special education teacher" (p. 16). Two of the respondents felt negative about teaching SWDs; they stated reasons such as, "it takes more time" and "classroom numbers make it extremely difficult to give individual attention" (p. 16). Six out of ten respondents stated having little to no training from their teacher preparation programs to address inclusive education. All teachers who

participated in the survey claimed they have received hardly any training provided by the school district either. This indicates a procedural issue that administrators need to keep in mind.

Klimaitis' (2020) study recognized fundamental "instructional practices for science, technology, engineering, and mathematics (STEM) lessons for SWDs based on the perceptions of teachers" (p. ii). Her methods consisted of 13 interviews with teachers coming from 12 different schools in one suburban school division in Virginia. Deductive coding was used to analyze her results. Her analysis identified "instructional practices, and barriers, and recommended PD" (p. ii). Her findings resulted in identifying several points that could assist SWDs with accessing the STEM lessons. First, teachers/educators need to know the SWDs. There need to be relationships formed. Support staff and others should be used appropriately. Classes should have intentional groupings with assigned group roles. Hands-on learning should be taking place as much as feasible. Lastly, classroom modification assists SWDs gain access to STEM lessons. Additionally, Klimaitis stated that "student ability level, lack of adult support, and time limitations were identified as barriers for SWDs' participation in STEM lessons" (p. 1). This study identified barriers for SWDs regarding STEM lessons; however, many of the same barriers are present in the inclusive classroom throughout the curriculum.

### **Role of Leadership in an Inclusive K-12 School**

Districts, as well as individual school administrators, should be responsible to educate and refresh all staff on current practices and policies regarding inclusive education. Leaders need to keep in mind the current studies and research involving inclusive education in the K-12 public school setting to create an inclusive school culture. These findings should assist district leaders and administrators in developing viable collaborative, co-teaching inclusive practices in their school setting. For example, Austin's (2001) study showed that administrative support is

essential if collaborative teaching is to be effective. Austin wrote that, “an effective inclusive program requires the commitment of administrators, faculty, staff, and parents to provide the necessary allocation of human and material resources to increase the likelihood of its success” (2001, p. 254). This commitment is vital for any successful educational program. It is even more important when dealing with SWDs access to inclusive education.

Special education dynamics tend to bring about arduous situations that teachers and administrators must navigate, often daily (Bateman & Yell, 2019). School divisions must not provide a “program, aid, benefit, or service” (p.5), that is equally effective as those provided to SWDs. Hentz (2018) details five steps for creating a co-teaching learning environment. First, collaborative, co-teachers need to “develop a collaborative relationship and be open to sharing information about expertise, teaching philosophy, and roles and responsibilities” (2018, p. 5). Second, instructional procedures for the collaborative, co-taught class need to be established. Third, a physical environment conducive to the integration of the co-teaching approaches needs to be created. Fourth, pairs need to build a classroom community that fosters student-teacher and student-student relationships. Last, collaborative, co-teaching pairs need to identify the process for planning, integrating the specially designed instructional needs, and using data to inform instruction.

Mullen and Hunt’s (2022) study with special education teachers in two school districts within southwest Virginia reported instructional strategies that supported outcomes for students with an Emotional Disability (ED). Their study had nine special education teachers in elementary, middle, and secondary classrooms within those two school districts. Based on their study and their educational research, they found that targeted instructional strategies are capable of making a difference for students with ED to support their academic needs and growth.

Interviews of the special education teachers occurred during the COVID-19 pandemic. The participants interviewed expressed concern about the “quality of attention and care for this vulnerable population in school localities that have been reduced to crisis-induced online delivery systems that may be leaving SWD even further behind” (p. 22). They further stated that the marginalization of SWDs in schools, as well as the workforce, is an injustice.

Another driving force for school leaders is Joint Legislative Audit and Review Commission (JLARC). JLARC conducts program evaluation, policy analysis, and oversight of state agencies on behalf of the Virginia General Assembly. The duties of the Commission are authorized by the Code of Virginia. JLARC Report 545 to the Governor and the General Assembly of Virginia entitled *K-12 Special Education in Virginia* (2020) included important aspects regarding inclusion. This report stated that even though there is an emphasis on inclusion, “Virginia does not prepare general education teachers or administrators with necessary special education-related skills” (p. iii). In Virginia as well as nationally, “Approximately 95% of students with disabilities are served in public schools, and a majority of students with disabilities spend most, and increasingly more, of their time in the general education classroom” (p. iii). Out of those students receiving instruction, 71% receive instruction for the majority of the day in the general education classroom. However, students with more profound disabilities that affect their learning typically spend less time in general education classrooms. It was noted that the time that SWDs spend in the general education classroom has increased over time. General educators play a critical role in educating SWDs; however, many feel as though they “do not know how to effectively teach and support students with disabilities, including how to collaborate with special education teachers” (p. iv). Numerous general education teachers are not equipped to adapt instruction required for SWDs nor have they had special education-specific training. This is due



largely to the fact that teacher preparation programs do not include specific training. JLARC further noted that “about 50% of the special-education directors responding to JLARC’s survey indicated that they felt half or fewer of the general education teachers in their division have the skills necessary to support students with disabilities” (p. iv). Further, only about a third of special education directors reported that “half or fewer of the building level administrators in their division have the knowledge or skills to support students with disabilities or their teachers” (p. iv).

Regulations in place for state licensure and administrator preparation programs typically require only minimal training in special education. According to JLARC (2020), this is a noted area in which opportunities for improvement could occur. According to Bateman and Yell (2019), the USDOE has a number of offices such as the Office for Civil Rights (OCR), Office of Special Education Programs (OSEP), and Office of Special Education & Rehabilitative Services (OSERS), that assist state and local special education officials, administrators, and teachers: “These offices provide leadership, enforcement, and fiscal resources to assist in the education of SWD” (p. 5). Further these researchers stated that, “One way that OSERS, OCR, and OSEP accomplish this is through developing, communicating, and disseminating federal policy interpretations on special education through policy letters, guidance documents, and memos” (p. 5).

Recommendations resulting from Austin’s (2001) study indicated improvements in practice as well as noted areas for further research. Collaborative pairs should offer feedback to one another regularly. Pairs should have shared classroom management, daily mutual planning time, and cooperative learning techniques. Also, instructional leaders need to keep in mind that seeking inclusion by thrusting students into educational environments where they are

unprepared—meaning both students and/or teacher and administration—is neither fair nor just (Anastasiou & Kauffman, 2011; Dudley-Marling & Burns, 2014, p. 20).

Regarding the academic classroom, Casale-Giannola (2012) found that teachers lacked strategies to support SWDs and were unaware of laws pertaining to special education as well as student classifications and needs (Ford, 2013). Orr (2009) identified that according to the lived experiences of the co-researcher participants, three phenomena provided support and nurturing of inclusionary practices. First, the school-wide pro-inclusion philosophy is beneficial. This school-wide culture aids in teachers not feeling as though they are, “alone against many when seeking inclusive learning environments for their students” (p. 235). Next, positive, and welcoming attitudes of general education teachers to both special education teachers and students foster a conducive learning environment. This goes together with the third theme. General and special educators need to have a shared partnership.

Graziano and Navarrete (2012) suggested that “educational reform that leads to an increase in K-12 student achievement starts with effective teacher preparation programs that include curricula for addressing the learning, language, and social needs of a diverse student population” (p. 123). They also remark that “co-teaching in its most effective form can promote equitable learning opportunities for all students” (p. 109). Co-teaching has become a frequent practice in addressing the increasingly diverse K-12 learning needs. These collaborative partnerships are now a common approach to effective inclusion in K-12 schools (Graziano & Navarrete, 2012).

Tomlinson (2001) outlined five guidelines for successfully differentiating instruction in the inclusive classroom (see Table 5). All key concepts and generalizations need to be clarified. Assessment tools should be used as a teaching instrument to extend instruction. Critical and

creative thinking should be a goal of lesson design. All students should be engaged in learning. A balance of tasks between what is assigned by the teacher and selected by the student should be provided (Ford, 2013).

**Table 5**

*Guidelines for Successfully Differentiating Instruction in Inclusive Classrooms*

---

Guidelines
1) Clarify all key concepts and generalizations.
2) Use assessment as a teaching tool to extend instruction.
3) Make critical and creative thinking a goal of lesson design.
4) Engage every student in learning.
5) Provide a balance of tasks between what is assigned by the teacher and selected by the student.

---

Tomlinson (2001)

“Barriers that should be mentioned,” stated Austin (2001),

are that the inclusion of some students might be explicitly for socialization, despite the evident disparity in the academic achievement of these students compared with their general education peers as well as concerns for the potentially disruptive effects of some SWD on the academic performance of classmates without disabilities. (p. 251)

This means that there are some concerns for SWDs who are placed in an inclusive classroom explicitly for socialization. There may be disruptive effects that negatively affect the academic performance of their peers without disabilities. Other barriers to inclusive education were noted by Orr (2019), who maintained that one of the main barriers to inclusion includes the negative attitudes of general education teachers. Another barrier is essential personnel’s lack of knowledge of inclusionary practices. Lastly, he identified insufficient administrative support as a barrier to inclusive education practices.

Klimaitis and Mullen (2021) identified at least seven barriers to inclusive education for SWDs: (1) School personnel not working together as collaborators but instead acting in isolated ways. (2) The lack of knowledge and skills is present for both teachers and principals. (3) The resistance to attempting new ways to serve SWDs. (4) A continued lack of training targeting inclusive educational practice increases teachers' and administrators' lack of knowledge. (5) The lack of meaningful instructional, (6) environmental, and (7) testing accommodations are other barriers noted. The presence of low expectations for SWDs (also, Sukhai & Mohler 2016, VDOE, 2020) indicates that the lack of mentorship is a further barrier to inclusive education.

VDOE (2019) outlined that the public-school setting should keep key factors for successful inclusion at the forefront of their minds. First, SWD inclusive education should have individualized and relevant learning objectives that are aligned to state standards. Next, even when students are provided specially designed instruction that supports their successful academic and social progression, they should still be able to fully participate in school routines with their classmates. Furthermore, there needs to be a school-wide commitment to structure, and practice integrated into the overall mission of educating all children. Lastly, and most importantly, an IEP team should collaboratively develop and implement a student's IEP. These educational plans should serve as a living document that supports successful academic and functional outcomes in a general education setting.

## **Summary**

The significance of studying inclusive practices in the collaborative, co-taught K-12 classroom is to raise awareness about the importance of this kind of teaching strategy for improving the learning environment of all students and increasing academic achievement. The LRE mandate in the IDEIA (2004, 20 U.S.C. § 1400) makes it evident that educating SWDs in

inclusive classrooms is preferred; however, research regarding the effectiveness of co-teaching is currently limited (Ford, 2013). The skills required to implement inclusive practices take time to develop. These skills should be addressed before entering the field during the teacher preparation courses. Then, once teachers are in the field, the practice of co-teaching could bring more confidence and strategies to the successful teaching of all students in inclusive classrooms (DaFonte & Barton-Arwood, 2017, Koh & Shin, 2017, Strongilos et al., 2017). As Koh and Shin (2017) pointed out, educators need to investigate how inclusive education in the US has changed as well as whether efforts over the past three decades have been effective. The literature review findings prompted the research question: *What effective practices and strategies are implemented in collaborative, co-taught K-12 classrooms?*

### **Chapter Three: Methodology**

This chapter presents the methodology and procedures utilized to conduct this narrative case study. Nine participants in K-12 public schools from varying levels—primary, middle, and secondary—were interviewed either in a focus group or one-on-one. The criteria for participant selection, interview protocol, data collection methods, and data analysis are discussed. The purpose of this study was to identify strategies, communication, and professional development (PD) factors impacting co-teaching collaborations in the K-12 inclusive classroom as well as the role of leadership in developing school culture.

#### **Research Questions**

The primary research question for this study was, what practices and strategies are implemented in collaborative, co-taught K-12 classrooms? The secondary questions were (a) What strategies do co-teaching collaborations utilize? (b) What communications/collaborations between partners were utilized? (c) What additional training/support do co-teaching partners need from administrators?

#### **Research Design and Justification**

The research design for this narrative case study was chosen to feature the perceptions and lived experiences of teachers in collaborative, co-taught inclusive classrooms. A qualitative approach, according to Creswell (2018), is receptive to people and places. An email containing a demographic survey with an explanation was sent to 48 potential participants. This survey included questions about the level of education, grade level(s) and content area(s) of instruction, teaching experience, and whether the willing participants were general education or special education teacher (Appendix A). Out the 48 demographic surveys, only 12 participants were willing to participate in a follow-up focus group or one-on-one interview. Three of them later

decided that participation did not fit into their schedule, and they respectfully declined to participate in the interview portion; therefore, the final number of participants was reduced to nine. Collaborative, co-teaching interviews were used to explore the previously stated research question and secondary questions. Participants were interviewed in either a focus group setting or a one-on-one setting. There was one focus group of special educators grades 5-12 and another of general educators grades 5-12. The other five participants were interviewed in a one-on-one setting due to participants' preferences and schedules. Triangulation and member checking of the data collected identified organizational strategies for implementing collaborative, co-teaching inclusive classrooms. As evidenced by research, collaborative, co-teaching inclusive classrooms contain variables that affect the complexity of these unique partnerships.

Qualitative research was the method that was used to determine the how and why regarding a phenomenon within an organic setting. The how and why collaborative, co-taught partnerships affect students with disabilities' (SWD) academic outcomes were investigated. This approach used both inductive and deductive analysis allowing themes to be identified (Creswell, 2018). This study built upon Chapter 2's literature review for collaborative, co-teaching partnerships in enacting effective practices to address the academic needs of SWD in the inclusive classroom.

Therefore, a qualitative narrative case study allowed the researcher the necessary flexibility to analyze the perceptions and lived experiences of educators through a variety of exploratory skills. This type of methodology required the usage of varied sources of data collection to add breadth and depth, assist in triangulation, and improve the validity of the research (Yin, 2009). To explore the previously stated research questions to validate the findings,

a demographic survey and semi-structured collaborative, co-teaching focus groups or one-on-one interviews were used.

### **Selection of Setting and Participants**

Participants interviewed were selected based on their collaborative, co-teaching experiences, years of service, and physical location in a pre-selected district. The research was conducted at different grade levels in one rural K-12 public school district in Southwest Virginia. The researcher was able to gain perspectives from all three levels: primary, middle, and secondary. The participants were selected by purposeful sample, with voluntary participation for both special and general educators teaching in the collaborative, co-taught classroom within the school district. Furthermore, this type of sampling provided different individual perspectives (Creswell, 2018) to identify potential strategies for encouraging and improving inclusive practices.

Although the researcher is both a special and general education teacher within the district, this relationship did not impact her ability to impartially collect and analyze data from colleagues. However, to ensure that proper data collection and analysis occurred, this was considered and will be further discussed in the data collection procedures in the Instrument Design and Validation section.

### **Limitations and Delimitations**

The major limitation of this study was that data collected were only generalized to the perceptions and experiences of collaborative, co-teaching teachers within a rural Southwest Virginia school district. This study did not include urban school divisions. Different school divisions within the Commonwealth of Virginia may not hold the same preconceived thoughts as to perceptions and experiences within the collaborative, co-taught inclusive classroom. The



results cannot be generalized to educators who do not teach in a collaborative, co-taught inclusive classroom in public K-12 education. As a former collaborative, co-teaching partner, the researcher noted that she may have preconceived notions as to what is most helpful in an inclusive classroom. Collecting data without inserting opinions on participants' responses aided to monitor bias. Focus was maintained to assist in the collection of participants' honest perspectives: educators from the researcher's school did not participate in the study. Another limitation was the size of the population sample. Due to the nature of the case study, only nine teachers that met the study's criteria volunteered to be interviewed. The research did not include the perspective of the students or families that have been a part of the collaborative, co-taught inclusive classroom setting, only the role of educators was investigated. The interview protocol included questions that brought forth strategies used by each of the participants interviewed.

Regarding delimitations, only general education and special education teachers with at least one year of experience in collaborative, co-teaching classrooms were given detailed interviews that outline firsthand experiences of professionals in an inclusive classroom. These perspectives were used to identify themes such as communication, strategies, and needed supports within these classroom settings that could help bring about change to better service the marginalized group of SWDs within a rural Southwest Virginia school district. The researcher decided to conduct the study in primary, middle, and secondary grade levels within a high-poverty rural K-12 public school district in Southwest Virginia to gain insights from all three levels.

## **Data Collection Procedures**

Participants were interviewed in either a focus group or a one-on-one setting in Zoom for 30-45 minutes. There was one focus group of special educators grades 5-12 and another of general educators grades 5-12. The rationale for this approach was to allow both special educators and general educators with similar expertise to reveal their thinking and responses to colleague's comments. This allowed participants to ignite some discussion points off of one another. The other five participants were interviewed in a one-on-one setting due to participants' preferences and schedules.

Virginia Tech's (VT) Institutional Review Board (IRB) had no COVID-19 restrictions on data collection regarding in-person participation. However, safety guidelines and regulations of the facility in which the interview took place were followed. The interview protocol was followed, and all interviews were recorded using two devices (one for backup) with password protection. Interview sessions were transcribed and analyzed using codes to identify themes around the experiences of the collaborative, co-teachers, and three qualified raters independently review a sample of the transcription, with coding results compared. The dissertation chair (Dr. Mullen) separately coded the interview data independently and with the researcher to arrive at major and subcodes to determine how best to organize and present the data, including a sample. Before the analysis of data occurred, participants were asked to review the transcriptions to verify the accuracy of their recorded responses.

## **Instrument Design and Validation**

Interviewing collaborative, co-teachers allowed for the collection of individual perspectives, pair dynamics, communication, strategies that have been implemented, and needed

supports for these classrooms were investigated. The open-ended questions were grounded in the literature review and aligned (see Table 6) with the research questions.

**Table 6**

*Questions for Teachers on Collaborative, Co-teaching Experience and Verifying Sources*

Interview Question	Source(s)
How would you describe your collaborative, co-teaching arrangement, and how does it function or operate?	Ford (2013); Parker et al. (2012)
Would you describe the nature of your collaborative, co-teaching experience as generally positive (effective) or problematic (ineffective), or mixed? Please, elaborate.	Austin (2001); Devore et al. (2011)
What type of instructional techniques, classroom management strategies, and/or curriculum adaptations are in your collaborative, co-teaching?	Anastasiou & Kaffman (2011); Bondie et al. (2019); Dudley-Marling & Burns (2014)
What are your responsibilities in the collaborative, co-taught classroom?	Brinkmann (2012)
What are the determining factors of effective collaborative, co-teaching? How would you describe an effective collaborative, co-teaching classroom? Please, elaborate on your definition and examples of effectiveness.	Casale-Giannola (2012); Orr (2012); Ford (2013); Tomlinson (2001)
Has the collaborative, co-teaching experience contributed to your professional knowledge and skill?	Graziano & Navarrete (2012)
What type of support is provided by the school to facilitate your collaborative, co-teaching assignment?	Brinkmann (2012); Murray (2009); Orr (2009)
In your opinion, how might school division/administrators improve the collaborative, co-teaching experience in your building?	Graziano & Navarrete (2012); Grider (1995)
In your opinion, how might stakeholders (like teachers/staff and parents) contribute to making the collaborative, co-teaching experiences in your building as positive as possible?	Dudley-marling & Burns (2014); Scanlou & Baker (2012)
What tips and lessons have been learned that you would provide to teachers potentially interested in collaborative, co-teaching?	Klimaitis & Mullen (2021); Orr (2019); Sukhai & Mohler (2016)

Creswell and Poth's (2018) research-based process was utilized to address the need for an effective interview protocol and provided 10 steps for effective interview protocols:

- Determined the research questions that were to be addressed and answered by interview data.
- Identified a purposeful sampling of participants who could best answer interview questions.
- Distinguished interview to be practical and to have meaningful interactions in order to gather the most useful data.
- Collected data utilizing recording methods while conducting both one-on-one and focus group interviews.

- Designed and used an interview protocol (Appendix C).
- Refined the interview questions (Appendix E)
- Located a distraction-free location to conduct interviews.
- Obtained verbal consent from interviewees to take part in the study (Appendix D) which was approved by VTs IRB.
- Followed interview protocol.
- Determined transcription logistics in advance.

The researcher adapted and utilized interview questions created by Smith's (2012) dissertation entitled *Co-Teaching: A Case Study of Teachers' Perceptions*. These interview questions were adapted to suit this study. Adapted interview questions assisted in answering the research question as well as the secondary questions:

*What effective practices and strategies are implemented in collaborative, co-taught K-12 classrooms?*

(a) *What strategies do co-teaching collaborations utilize?*

(b) *What communications/collaborations between the two partners utilized?*

(c) *What additional training/support do co-teaching partners need from administrators?*

During the interview, the experiences and perceptions of collaborative, co-teachers in a rural Southwest Virginia public school system were captured. The researcher aimed to gain information and insight on the effective practices and strategies implemented in collaborative, co-taught classrooms.

## **Interview Protocol**

The interview protocol used Creswell and Poth's (2018) research-based process methodology and was consistently followed for each interview. The interview protocol can be found in Appendix C. For this study of collaborative, co-teaching partnerships, both social constructivism and disability theories play a vital role in the investigation of lived experiences of those individuals.

## **Confidentiality and Ethical Treatment of the Data**

Data for this study were stored on a password-protected computer at the researcher's residence and will be maintained for at least two years. The researcher and committee chair, Dr. Carol A. Mullen, have sole access to the study data via a shared VT Google Drive for secure access and storage. Interviews were transcribed by the researcher, and audio recordings from each participant were reviewed to ensure accuracy of responses before member checks were conducted. Data were uploaded to a personal password-protected computer and stored in files that were labeled with collaborative, co-teachers' initials, and the date and time of the interviews.

## **Data Analysis**

The organization of the demographic information was the first part of the data analysis provided (Table 8). Demographic survey data were collected via VT's QuestionPro platform. The selected collaborative, co-teachers from the demographic survey were select to represent a diverse group of teachers. Codes and themes were established from the transcribed focus group and one-on-one interviews and served as the second data source. In addition to the validation of the interview questions from the literature review and research questions, two practice interviews were conducted with two former collaborative, co-teachers to refine interview questions.

A deductive coding method was used to analyze data. A pre-determined start list was created using the research questions as well as themes from the literature review. As Miles et al. (2019) pointed out, “The list of codes comes from the literature review, conceptual framework, list of research questions, hypotheses, problem areas, and/or key variables that the research brings to the study” (p. 74). Interview excerpts were used to demonstrate the meaning of the findings. Analysis was undertaken by comparing and contrasting each code with other codes. An analysis of clustered codes assisted in identifying shared meanings and aided in theme development. Table 7 displays a predetermined beginning list of codes and themes that were utilized. A demographic survey was used to survey whom and serve as a data source. A diverse group, to the extent possible, of 48 individuals was reflected. Table 7 displays the alignment of interview questions to research questions, data sources, codes, and data analysis.

**Table 7**

*Alignment of Interview Questions to Research Questions, Data Sources, Codes, and Analytic Procedures*

<i>Research Question</i>	<i>Data Sources</i>	<i>Data Analysis</i>
<i>Primary RQ: What effective practices and strategies are implemented in collaborative, co-taught K-12 classrooms?</i>	Interviews to gain perspectives of collaborative, co-teachers (Interview questions 3, 4, 5; Appendix E)	<ul style="list-style-type: none"> <li>• Deductive coding</li> <li>• Code responses by practices and strategies identified</li> <li>• Read transcribed interviews and note codes in the margins.</li> <li>• Create labels in Word document to organize information from interview questions.</li> <li>• Codes: practices (PRC) and strategies (STR)</li> </ul>
<i>RQA: communication barrier</i>	Interview question 3 (Appendix E)	<ul style="list-style-type: none"> <li>• Code: communication (COM)</li> <li>• Teachers identify communication used with the collaborative, co-teaching partnership and classroom</li> <li>• Look for common practices and strategies used.</li> </ul>
<i>RQB: Training, PD, and preparation</i>	Interview questions 4 and 9 (Appendix E)	<ul style="list-style-type: none"> <li>• Codes: training (TRN), professional development (PD), and preparation (PREP)</li> <li>• Teachers identify training, PD, and preparation for collaborative, co-teaching inclusive classrooms-note commonalities.</li> <li>• Teachers identify which training, PD, or preparation impacted classroom-note commonalities.</li> </ul>
<i>RQ C: Individual's perspectives on communication, responsibilities, tasks, and expectations</i>	Interview questions 1, 2, 5, 6, 7, 8, 10 (Appendix E)	<ul style="list-style-type: none"> <li>• Codes: communication (COM), responsibilities (RES), tasks (TSK), and expectations (EXP)</li> </ul>

**Summary**

To obtain their perceptions on the research topic, participants' lived experiences were collected. This chapter provided a synopsis of the methodology. Research design and justification, study setting, participant selection, data collection protocol, study approval process, instrument design and validation, data treatment, and data analysis of the research are provided. The primary sources of data were focus group interviews and one-on-one interviews conducted with collaborative, co-teachers.

## Chapter Four: Data Analysis and Findings

### Introduction

The purpose of this qualitative study was to identify inclusive practices, strategies, communication, and professional development (PD) factors impacting co-teaching collaborations in the K-12 inclusive classroom in one rural school division in Southwest Virginia.

The primary research question for this study was, *what practices and strategies are implemented in collaborative, co-taught K-12 classrooms?* The secondary questions were (a) *What strategies do co-teaching collaborations utilize?* (b) *What communications/collaborations between partners were utilized?* (c) *What additional training/support do co-teaching partners need from administrators?*

Two elementary special educators, one middle school general educator, one middle school special educator, two high school general educators, and three high school special educators participated. The demographic survey results of interviewee participants are displayed in Table 8.

**Table 8**

#### *Demographic Survey Results of Interviewees*

Participant (1-9)	Level of Education	Years of Service	Years of Co-teaching Experience	Grade Level	Content Area(s)	Educator Type
#1ESE	Master's	25-29	5+	3-5	English	SPED
#2ESE	Bachelor's	15-19	5+	K-2	English Mathematics	SPED
#3HGE	Master's	25-29	5+	9-12	English	GE
#4HGE	Bachelor's	25-29	5+	9-12	Mathematics	GE
#5MSE	Bachelor's	5-10	5+	6-8	Social studies/History English	SPED
#6MGE	Master's	10-14	5+	6-8	English	GE
#7HSE	Master's	30-34	5+	9-12	Mathematics	SPED
#8HSE	Educational Specialist	0-4	4	9-12	Science English	SPED
#9HSE	Bachelor's	25-29	3	9-12	Social Studies/History English	SPED



The same 10 questions were asked in each setting, and the responses were used to develop findings. Table 9 displays the interview questions asked.

**Table 9**

*Teacher Interview Questions on Collaborative, Co-Teaching*

Q1	How would you describe your collaborative, co-teaching arrangement, and how does it function or operate?
Q2	Would you describe the nature of your collaborative, co-teaching experience as generally positive (effective) or problematic (ineffective), or mixed? Please, elaborate.
Q3	What type of instructional techniques, classroom management strategies, and/or curriculum adaptations are in your collaborative, co-teaching?
Q4	What are your responsibilities in the collaborative, co-taught classroom?
Q5	What are the determining factors of effective collaborative, co-teaching? How would you describe an effective collaborative, co-teaching classroom? Please, elaborate on your definition and examples of effectiveness.
Q6	Has the collaborative, co-teaching experience contributed to your professional knowledge and skill?
Q7	What type of support is provided by the school to facilitate your collaborative, co-teaching assignment?
Q8	In your opinion, how might school division/administrators improve the collaborative, co-teaching experience in your building?
Q9	In your opinion, how might stakeholders (like teachers/staff and parents) contribute to making the collaborative, co-teaching experiences in your building as positive as possible?
Q10	What tips and lessons have been learned that would provide to teachers potentially interested in collaborative, co-teaching?

The interview questions responses overlapped when analyzing the findings. Questions one, two, and five yielded responses that constituted Finding 1, while questions one, four, eight, and ten were used to produced Finding 2. Finding 3 was generated by the participant responses to questions two, six, and ten. Finding 4 was a combination of questions one, three, five, and ten, while Finding 5 comprised of questions three and five. Finding 6 incorporated responses from questions two, three, four, and nine, while Finding 7 was derived from questions seven, eight, and ten. Finding four was taken from the responses to question six only. Focus group one consisted of two special educators, one middle school (5MSE) and one high school (7HSE). This group will be shaded blue. Focus group two had two high school general educators (3HGE and 4HGE). This focus group will be shaded green. The non-shaded participants' interviews were conducted one-on-one. Table 10 gives excerpts from participants' responses for each question that related to the findings.

Table 10

## Participant Quotes by Findings

Finding	1ESE	2ESE	3HGE	4HGE	5MSE	6MGE	7HSE	8HSE	9HSE
Collaborative, co-teachers need to build relationships through trust, mutual respect, time, and support.	Once you get to know that teacher on a personal level, both become stakeholders [...] knowing each other strengths and weaknesses and knowing we can read each other and can play off of each other. [...] We respect each other [...] it's not left to just one of us to handle the discipline. [...] An effective collaborative, co-taught classroom can be described as respectful of each other. [...] getting to know that the special needs teacher, getting to know the general education teacher that you're going into. I think you have to get a relationship with that other person, and to know the experiences that they've had and to know their background.	[...] the number one determining factor would be acceptance of the general education teacher to have a collaborative classroom and to welcome in special education teachers [...] not just to have them in their room but to welcome their ideas and their way of teaching something [...] to be accepting of your way is not always the only way or the best way	There have been some collaborative teachers with whom I have worked very well [...] establishing an atmosphere of mutual respect is tantamount to the success of your collaborative experience. [...] Whatever I say goes; whatever she says goes, and if I tell you no, that means no. Do not go to the other teacher and put her in the position of going against one another.	I have always treated people that I have co-taught as equal because they are equal. [...] respecting each other and making sure that students see that we are both equals.	I would consider my experience in the collaborative classroom to be effective, now, after we have been together for a few years. [...] it's just easier when you're working with somebody, especially somebody that you trust. [...] It'll take time, especially if you're working with a veteran teacher, and they're used to doing everything on their own. It's going to take time, and both people need to be aware of that. [...] They need to be open to going back and forth and being honest and communicating with one another instead of getting upset with one another	So, I have a hard time building and establishing functional, effective, as successful as it could be, working relations with my special education teachers just because it seems like it's really rare for me to get the same person two years in a row [...] I've had them even only for a semester and they [collaborative teacher] has been switched in the middle of the school year.	They (co-teacher) would always ask me for my input on my identified students. [...] important, the longer that you work with someone the more you can establish your relationship and modify it as you need to and develop that trust that you need to have to make it work [...] should be able to work together well enough to have some common ground and professional respect for one another. [...] So that as (both) work together (in order for the) relationship to evolve, and you can continue to change things that work [...] say things that don't work so that you get more parity in the classroom.	X	First, you have to have a good relationship with the teacher that you're working with. [...] communication is a big key. You (both) need to be on the same page.
Collaborative, co-teachers need common planning time, clear	My co-teacher and I plan together. We've worked together for 7 years. We are at the	Therefore, we have those words pre-planned out before the week starts.	As far as responsibilities, it is dependent upon what you	X	We both give input into the class [...] I think that especially if	Once you find someone you work well with. Just let it, ride.	I feel comfortable grading and planning the lesson. [...]	So, the general education teacher sets the expectations [...]	They (administrators) [...] (need to pair) a special

<p>expectations, and to work with one co-teaching partner instead of multiple partners to build viable relationships.</p>	<p>point in our co-teaching that we don't have to plan a whole lot. [...] a bond between 2 teachers that they can appreciate and get to know that other individual [...] not feel threatened because [...] sometimes teachers can be territorial</p>		<p>determine with your partner as to what the other person wants to do— what (each) feels comfortable doing.</p>		<p>it's a first-year new co-teaching team, the same planning time is very beneficial [...] spend that time working together.</p>	<p>Let that relationship continue.</p>	<p>we both talk about where we are, and what needs to come next. I have pretty much the same responsibilities as the general education teacher. [...] the second thing is making sure that you have co-planning (in order to) make sure you're both on the same page about what you expect, and what you don't.</p>	<p>I do not stay with the same teacher all day long. I go to different classes; I also do not have the same planning as the teachers that I work with. [...] So, getting together to plan would be beneficial. [...] What I need to do in the collaborative classroom is a bit of a challenge because I was with 3 different teachers in 2 different subjects. [...] the big thing for me is being on the same page.</p>	<p>education teacher and general education teacher together that has the potential to work well together is very critical. [...] very important for the administration to do that, and to allow those two teachers to work together for the next few years instead of (just) once. When you can be with that same teacher, it helps a lot.</p>
<p>Collaborative, co-teachers need to evaluate each other's strengths and weaknesses and plan lessons accordingly.</p>	<p>[...] We know what each other's strengths are, and how we can assist each other. [...]</p>	<p>X</p>	<p>X</p>	<p>[...] if a student is struggling, I may teach them another way to do it. In the past, some of my co-teachers would do the same for me. If I taught something, they (co-teacher) would sometimes show a student that was struggling a different</p>	<p>[...] we just have our roles, and it's worked for us, and we just keep doing it. You can plan things, and it's just easier when you're working with somebody, especially somebody that you trust. I think, paying attention to the teacher's strengths and weaknesses.</p>	<p>So, for me, the most effective relationships that I've had with my collaborative teachers are the ones where they step in without me having to direct [...] I may have weaknesses [...] being able to find someone that you can work with where you balance each other. [...] To meet each</p>	<p>[...] if you know in advance who you're going to be teaming with, I would encourage you to sit down and get to know each other and find out how you see a collaborative classroom working; what model do you think they'd be comfortable using; and what their pet peeves are [...] All those things that are more personal can interfere with providing instruction.</p>	<p>X</p>	<p>X</p>

				way to do the method or to work the problem.		other's weaknesses and strengths.			
Collaborative, co-teachers use a variety of strategies to have effective classrooms (i.e., differentiated lessons, station teaching, scaffolding, and team approach).	[...] I differentiate all the instruction and their work.	There are a lot of times that we will parallel teach in reading [...] It is not always strictly the general education teacher with the general education students and the special education students with the special education teacher. We mix the groups up. We do differentiated lessons [...] we generally do a whole group [...] The other one is walking around the classroom, making sure everyone is on task and following along. [...] the other teacher, the co-teacher, is going around helping to check for any areas [...] we would have to do behavioral mods or different management strategies [...]	[...] one of the most effective and positive experiences with collaborative teaching was when we established stations in the room [...] Regarding the classroom management portion of it, I think that students need to know from, the very beginning, that we are both your teachers.	He would teach and I would walk around to check and make sure students were doing what they were supposed to do. Then, we would switch roles. [...] For me, it would be, that we used a lot of guided practice. [...] we would work it either that would be I or the other teacher, and the other would walk around ensuring students' understanding .	I would do a small group instruction kind of modified work, and she would be able to go on and give more intense instruction, higher vocabulary words. [...] We use a lot of direct instruction.	We differentiate [...] One-on-one direct instruction	[...] I would observe; she would teach, and I would monitor the students. So, we used the one observed one teach model until I could become more comfortable with the content. [...] We, also, did a team approach, or a parallel type of model where she would teach a group and I would teach a group. [...] instructional techniques, we use a lot of direct instruction. There is a heavy emphasis on visuals. [...] We may have to do scaffolding [...]	We often do the <i>I do, we do, you do</i> model in our classroom	We do essays in smaller group settings at times.
Collaborative, co-teachers need to have equally shared teaching responsibilities.	She presents the information in the lesson, and I add them to the lesson. [...] The classroom knows from day one that we are equal partners in that classroom. [...] it takes	[...] the main factor is a willingness on both parts [...] but just the willingness of the general education teacher to accept a collaborative setting, and to accept that it's not just an aide	[...] sharing the teaching responsibilities has worked well [...] when the teaching responsibilities were shared	When the collaborative teacher and I shared the classroom, it worked very well. I think that we always had	[...] the students don't know the difference between who is a regular education teacher and who is a special education teacher. [...] we	[...] my special education teacher will even take over the general instruction if a student is more responsive to me so that I can	They (co-teachers) would always ask me for my input on my identified students. [...] I liked it because I do not just work with the identified students.	X	[...] getting together with them (co-teachers) [...] learning new techniques, learning new things about the subject [...] major

	two teachers that understand their roles.	[...] someone who is going to actively be teaching and participating in the teaching role and to allow the students to know they don't have one teacher but two teachers	and there was ownership [...] It is shared, and when the students see that you respect one another, they accept that, and they fall in line with that.	shared responsibilities [...] equal responsibility. That is the main thing, and both are being held accountable.	share the responsibility equally.	work one on one with them. [...] probably balance would be the best key.	[...] the children don't know who the special education teacher is and who is general education teacher.		in that, but I've learned a lot [...]
Both collaborative, co-teacher partners need to know SWD's IEP needs and accommodations, and both need to meet those prescribes needs not just the special educator.	I will add accommodations or any kind of modification to testing. She [co-teacher] respects whatever changes that I make to assignments.	As the special education teacher, I am the one who is in charge of making sure that the teachers know the disability of the special education students, and what accommodations and modifications they will need. When we are making those modifications, I am there to make sure the assignment is already marked for this student	X	X	I monitor and give students accommodations [...]	we follow our IEPs to a "T" [...] My responsibilities are as a general education teacher, the typical, you know, instruction and everything that comes along with that. But also, it is my job to read those IEPs at the beginning of the school year, and to know their needs, so that I can best assist them to be successful.	As far as accommodations and modifications, we do the same things. We do a lot of participation grades and a lot of completion grades. We let them redo it. We do reteach during resource time	[...] I, as the special education teacher, assist in accommodating the expectations that they have set.	X
Administrators need to assist with common planning times and PD, for both general and special education teachers, and conduct ongoing monitoring of those partnerships.	[...] it is based on our attitudes going into it. I've been in a co-teaching experience that has not been positive and/or effective, and it's basically because of the attitude going into it and the expectation of the other teacher. [...] Throughout the years	Talking with the staff every so often [...] to provide a refresher, especially for teachers who are general education teachers who have not been collaborative or haven't done it (collaborative) in a while [...] Just	X	X	You can plan things, and it's just easier when you're working with somebody, especially somebody that you trust. [...] I agree with co-planning time because there have been times	X	I do think there's administrative support [...] they [administrators] try to think about who they pair [...] and in what subject [...] but in terms of training, nothing other than just required webinars.	I know this is probably nearly impossible to meet because we don't have the number of students to meet this but if we had more special education teachers to spread us out so	X

	<p>we've been encouraged to go to different workshops and in-services. I have had PD opportunities along the way. I think administrators must be able to— [...] assigning different people into different positions because of their strengths and weaknesses. [...]</p>	<p>refreshing teachers on the lingo, what all the different meetings mean, and what we can or can't do,</p>			<p>in the past when we did not have the same planning, and it made things difficult.</p>			<p>we could work with one teacher all day and have the same planning period as them [...] it (collaboration) would go smoother or at least me with the same at least one teacher twice a day with the same planning [...]</p>	
<p>Collaborative, co-teaching is built on each teacher's professional skills and knowledge.</p>	<p>Yes, because you're learning from someone else daily.</p>	<p>Absolutely! I think that it helps a special education teacher to see different methods. You (special education teacher) go into different classrooms, and they teach skills in different ways. [...] Then, you could take it to a different room [...] You get a very versatile arrangement of teaching styles and knowledge from teachers who have been doing it for a long time.</p>	<p>As teachers if we are not willing to continue to learn, we are not effective teachers.</p>	<p>For me, absolutely because I am seeing another person teach, and I am also observing how the students are reacting to how the other teacher is teaching. [...] It has helped me to improve my teaching</p>	<p>I think that collaborative teaching, working with someone else, is the best way to work. [...], I think that there are only positive things that can come from it.</p>	<p>Well, I mean if I've not had an inclusion classroom, or did not work with special education students every year I wouldn't be as knowledgeable about you know IEPs or the whole other side of it, and exactly how much is involved that general education teachers often don't see.</p>	<p>100%. Over my career, I love having another person in the room. You get your best ideas from other people. I love having young new teachers come and do their student teaching or observation, but I love being that old dog that can learn new tricks, too. It's helped me not only with content, test-taking strategies, discipline, with rapport with my students—I cannot think of an area of teaching that that collaboration has not helped.</p>	<p>Yeah, I think so. It's allowed me to watch how other teachers handle different situations, and it's [...] why I chose to be a teacher.</p>	<p>Yes, it has in English. It sure has when you have somebody that's majored in that subject, [...]. Getting together with them learning new techniques, learning new things about the subject that [...] major in that, but I've learned a lot of being with that</p>



## **Findings**

Two focus groups were conducted. Focus group one consisted of two special educators, one middle school and one high school. Focus group two had two high school general educators. Five one-on-one interviews were conducted, with two elementary special educators and three high school special educators. There were six special education teachers and three general education teachers participating at the elementary, middle, and secondary levels.

### ***Finding 1***

Collaborative, co-teachers need to build relationships through trust, mutual respect, time, and support.

**Analysis of Support Finding 1.** Responses to interview questions one, two, and five gave the supporting data for Finding 1. It was noted by 88.8% of participants (1ESE, 2ESE, 3HGE, 4HGE, 5MSE, 6MGE, 7HSE, and 9HSE) that collaborative, co-teachers need to build relationships. Of these eight participants, 50% (5MSE, 6MGE, 7HSE, and 9HSE) mentioned that these relationships need to be built on trust, while 62.5% (1ESE, 2ESE, 3HGE, 4HGE, and 7HSE) of the eight articulated mutual respect as an effective relationship builder. All eight of the participants agreed that time and support were essential. The data for Finding 1 are represented by five special educators and three general educators with two elementary educators, two middle school educators, and four high school educators.

Collaborative, co-teaching needs facets that assist in creating viable relationships. Jones et al. (2008) stated, “Collaborative teaching refers to an educational approach in which general and special educators work in a [supportive] and coordinated, fashion to jointly teach academically and behaviorally heterogeneous group of students in educationally integrated



settings” (p. 203). Through strong Individualized Education Plan (IEP) relationships, data collection of students’ abilities, and establishing functional goals and strategies based on data, the student’s education in the inclusive setting introduced students with disabilities (SWD) into the community in a gradual fashion by supporting their skills in the least restrictive environment (LRE) setting. Educators must make sure they are designing, implementing, and adjusting a specialized curriculum and measuring improvements in their behavior over time (Devore et al., 2011; Dudley-Marling & Burns, 2014). Furthermore, this process emphasized the use of scientifically based best practices research (Anastasiou & Kaffman, 2011; Dudley-Marling & Burns, 2014).

Murray (2009) conducted a survey in a small rural school district seeking out current research that indicated the correlation between training teachers received and their willingness of teachers to include SWDs. The purpose of Murray’s survey was to determine “how teachers’ background, training, and support shape their views of teaching SWD” (pp. 14-15). The survey was sent electronically to general education teachers throughout all grade levels in a small, rural school district. It was noted that this school district was inclusive and the majority of SWDs were mainstreamed in general education classes with varying levels of support provided by the special education department. Due to the anonymity of the electronically completed survey, Murray was not able to determine the exact grade/subject respondents taught. The survey Murray sent out consisted of six short-answer questions. Ten surveys were returned within the time allocated in the form of e-mail or anonymous hard copy through district mail. Murray’s survey seemed to support the current research indicating the correlation between training and education of the teaching staff and the willingness of the teachers to educate SWDs inclusively.

According to Hentz (2018), co-teaching pairs must have a structure and format for planning. Having well-planned lessons is essential to being effective. The BASICS strategy for co-planning for collaborative, co-teaching pairs is outlined to provide support in creating lessons that meet the needs of a diverse student population. Five steps for creating a co-teaching learning environment were detailed. First, collaborative, co-teachers need to “develop a collaborative relationship and be open to sharing information about expertise, teaching philosophy, and roles and responsibilities” (2018, p. 5). Second, instructional procedures for the collaborative, co-taught class need to be established. Third, a physical environment conducive to the integration of the co-teaching approaches needs to be created. Fourth, pairs need to build a classroom community that fosters student-teacher and student-student relationships. Last, collaborative, co-teaching pairs need to identify the process for planning, integrating the specially designed instructional needs, and using data to inform instruction. Devore et al. (2011) emphasized the need for buy-in from all the parties involved with a focus on the need to trust each other’s expertise. Klimaitis’ (2020) and Klimaitis and Mullen’s (2021) further supported this idea in their study that used teacher perceptions to distinguish important instructional practices for (STEM) lessons for SWDs. One of their findings was that teachers/educators need to know the SWDs, and relationships need to be formed.

### ***Finding 2***

Collaborative, co-teachers need common planning time, clear expectations, and one co-teaching partner instead of multiple partners to build viable relationships.

**Analysis of Support Finding 2.** Responses to interview questions one, four, eight, and 10 gave the supporting data for Finding 2. It was noted by 88.8% of participants (1ESE, 2ESE, 3HGE, 5MSE, 6 MGE, 7HSE, 8HSE, and 9HSE) that collaborative, co-teachers need common

planning time, clear expectations, and one co-teaching partner instead of multiple partners to build viable relationships. Of these eight participants, 62.5% (1ESE, 2ESE, 5MSE, 7HSE, and 8HSE) mentioned that collaborative, co-teachers need adequate common planning time, as well as 62.5% (3HGE, 5MGE, 6MGE, 7HSE, and 8HSE) of the eight articulated clear expectations as a necessity to build viable relationships. It was noted by 62.5% (1ESE, 3HGE, 5MSE, 8HSE, 9HSE) that it was beneficial to work with one co-teaching partner instead of multiple partners and to work with those partners for consecutive years. The data for Finding 2 is represented by six special educators and two general educators with two elementary educators, two middle school educators, and four high school educators.

According to Dieker and Murawski (2003), co-teaching involves two or more teachers who are equal in status working together in the classroom to provide instruction. Cook and Friend (1995) stated that co-teaching was when two professional deliver substantive instruction to a diverse group of students in an individual location. According to Hentz (2018), the co-teaching pairs must have a structure and format for planning. Having well-planned lessons is essential to being effective. Pairs need to analyze student data (such as IEPs, accommodations, and specially designed instruction) and identify the needs to guide instructional planning. Collaborative, co-teaching pairs need to identify the process for planning, integrating the specially designed instructional needs, and using data to inform instruction. They should then use the BASICS strategy along with co-planning to assist pairs to both be active participants in the inclusive classroom. When planning collaboratively, pairs need to know what co-teaching models work best for each lesson and grouping (Hentz, 2018).

When educators manage students that have learning disabilities, many agree that the regular classroom is the appropriate placement for SWDs if the students can function in the

regular classroom without considerably altering the regular education curriculum or student expectations (Dudley-Marling & Burns, 2014; Scanlon & Baker, 2012). Devore et al. (2011) emphasized the need for buy-in from all the parties involved with a focus on the need to trust each other's expertise.

As Klimaitis and Mullen (2021) noted, one barrier to inclusive education involves school personnel not working together as collaborators but instead acting in isolated ways. Austin's (2001) study suggests that collaborative pairs should offer feedback to one another regularly, and pairs should have shared classroom management, common planning time, and incorporate cooperative learning techniques. These barriers can be avoided by having clear expectations and adequate planning together.

### ***Finding 3***

Collaborative, co-teachers need to evaluate each other's strengths and weaknesses and plan lessons accordingly.

**Analysis of Support Finding 3.** Responses to interview questions two, six, and ten gave the supporting data for Finding 3. It was noted by 55.5% of participants (1ESE, 4HGE, 5MSE, 6MGE, and 7HSE) that collaborative, co-teachers need to evaluate each other's strengths and weaknesses and plan lessons accordingly. Of these five participants, 100% mentioned that collaborative, co-teachers need to plan lessons based on each partner's strengths and weaknesses. The data for Finding 3 are represented by three special educators and three general educators with one elementary level educator, two middle school educators, and two high school level educators.

For many years, according to Benginghof (2020), co-teaching has occurred in some schools. Forward thinkers in the field of education discerned early the need for SWDs to have

access to the general education curriculum in tandem with an educator trained in specially designed instruction (i.e., a special education teacher). These special education teachers have a way of providing a different lens than their general education counterparts. These special educators have the ability to “look at specific tasks, break them down into their smallest components, diagnose difficulties, and brainstorm unique instructional solutions” (p. 177). Special education teachers use their expertise to develop a related strategy that can be incorporated into the general education content so that all students benefit.

Collaboration permits varying expertise and perspectives to be shared among those responsible for the students’ learning and well-being (McLeskey, 2017). Austin (2001) also distinguished that having another educator’s expertise and viewpoint was beneficial. The value of remedial strategies allowed for all students, not just those with disabilities, to gain an understanding of the learning difficulties they may face.

#### ***Finding 4***

Collaborative, co-teachers use a variety of strategies to have effective classrooms (i.e., differentiated lessons, station teaching, scaffolding, and team approach).

**Analysis of Support Finding 4.** Responses to interview questions one, three, five, and ten gave the supporting data for Finding 4. All nine participants expressed a variety of effective strategies that they have implemented in the collaborative, co-taught classroom. In Table 12 the strategies discussed and implemented by participants are listed with the overall percentage of usage by the participant pool.

**Table 12***Collaborative, Co-teaching Strategies Used by Participants*

Strategy	Participant Percentage	Grade Level of Usage
One Teach and One Assist	77.7%	Elementary, Middle, High
Stations	66.6%	Elementary, Middle, High
Consistent & Supportive Classroom Management	55.5%	Elementary, Middle, High
Modified Classwork	44.4%	Elementary and High
Modeling	33.3%	High
Differentiated Instruction	22.2%	Elementary and Middle
Scaffolding	11.1%	High
Reteaching	11.1%	Middle

The most prevalent strategy discussed by the participants in this study was One Teach and One Assist with 77.7% of the participants (2ESE, 3HGE, 4HGE, 5MSE, 6 MGE, 7HSE, and 9HSE) identifying this strategy as effective in their collaborative, co-taught classrooms. Second, Station Teaching at 66.6% (2ESE, 3HGE, 4HGE, 5MSE, 6 MGE, 7HSE, and 8HSE) was articulated as an effective strategy. Third, five participants (1ESE, 2ESE, 3HGE, 6 MGE, and 7HSE) or 55.5% discussed the strategy of consistent and support classroom management by both partners. The strategies of One Teach and One Assist, Station Teaching, and consistent and supportive classroom management encompassed all three levels: elementary, middle, and high. Next, modified classwork at 44.4% (1ESE, 2ESE, 8HSE, and 9HSE) was only discussed by elementary and high school educators, while Modeling at 33.3% (7HSE, 8HSE, and 9HSE) was only mentioned by three of high school special education teachers. Further, differentiated instruction at 22.2% (1ESE, 6MGE) was outlined by one elementary special education teacher and one middle school general education teacher. Last, Scaffolding (7HSE) and reteaching (5MSE) were the least noted strategies with only 11.1% of participants. The data for Finding 4 are represented

by six special educators and three general educators with two elementary level educators, two middle school educators, and four high school level educators.

When looking at defining co-teaching approaches, Hentz (2018) noted that large-group and small-group instruction can have a substantial influence on student achievement. Each of the approaches Hentz (2018) outlined was said to be effective in different classroom situations and is meant to be flexible and used interchangeably while individualizing student learning and maximizing engagement. There also needs to be an emphasis on optimizing each teacher's expertise to meet individual student needs. It was noted that the One Teach, One Observe/ Assist/Support and Team Teaching are used for large group instruction with support, while Parallel Teaching, Alternative Teaching, and Station Teaching allow for "small-group instruction to meet individualized student needs while integrating the specifically designed instruction for positive student outcomes" (p. 3).

Inclusive educational practices and strategies in K-12 schools vary in the literature. Austin (2001) assessed 139 collaborative K-12 teachers in his study from nine school districts in northern New Jersey. As determined by data provided by the districts, each of the districts included in the study employed at least six collaborative teaching pairs. The inclusion model was established, and teachers that participated had to have been in a collaborative setting for at least one semester.

Results from Austin's *Perceptions of Co-Teaching Survey* revealed that only 28% of general education co-teacher participants, as well as 27% of special education co-teacher participants, volunteered for their inclusive classroom teaching assignments. This suggested the majority of 139 co-teacher participants were not given a choice about their assignment. Out of the 139 participants, 92 represented intact collaborative teaching partners. From this respondent

pool, 12 co-teachers were interviewed. This study indicated that collaborative, co-teaching partners valued shared classroom management and instructional duties containing established and maintained specific areas of responsibility. However, these partners did not share these responsibilities in practice. Most collaborative, co-teachers interviewed conveyed the belief that the collaborative teaching strategies were effective for all students' academic achievement. There are several points that Austin observed from his results. One detailed benefit was the reduced student-teacher ratio. Austin also noted that having another educator's expertise and viewpoint were beneficial. The value of remedial strategies and review allowed for all students, not just those with disabilities, to gain an understanding of the learning difficulties they may face. The 12 willing interviewees were randomly chosen from the survey respondents that had to participate in a follow-up interview (Austin, 2001). Data findings revealed that the co-teachers found the experience to "have contributed positively to their PD" (p. 250). The special education teachers from the 12 interviewees mentioned content growth while general education teachers commented on the advantages of the special education teachers' skills in classroom management and curriculum adaptation.

Orr (2009) conducted an interview-based study that explored new special educators' lived experiences. The selected co-researchers, 14 females and one male, whom were all graduates of the same Midwestern University, using purposive sampling. It was reported that "all 15 co-researchers who met the criteria agreed to participate in the study, thereby creating a purposive criterion sample" (pp. 230-231). Co-researchers were interviewed asking the same questions: "(a) the inclusionary practices of their schools, (b) the barriers to inclusion they have observed, and (c) any 'inclusion-supportive' practices, pedagogies or structures present within their teaching setting" (p. 231). Out of the 15 participants, eight taught in a setting where SWDs



spent most of the school day in general education classes. Of those eight, four participants were actively co-teaching with a general education teacher for at least part of the day. Even though inclusion practices were becoming more commonplace in education, two of the participants expressed their feelings of unpreparedness. This expressed feeling was due to the lack of in-depth instruction during their teacher preparation programs.

Orr (2009) remarked that even in the more inclusive settings, “co-researchers found a number of barriers to the practice of inclusion” (p. 232). Negative attitudes of general education teachers were the most frequently mentioned barrier. Next, the lack of knowledge of inclusionary practices from both the general education and special education teachers was noted. Co-researchers even stated that they questioned their abilities to successfully implement inclusion due to their lack of knowledge.

Murray (2009) conducted a survey in a small rural school district seeking out current research that indicated the correlation between the training teachers received and the willingness of teachers to include SWDs. The purpose of Murray’s survey was to determine “how teachers’ background, training, and support shape their views of teaching SWD” (pp. 14-15). The survey was sent electronically to general education teachers throughout all grade levels in a small, rural school district. It was noted that this school district was inclusive and the majority of SWDs were mainstreamed in general education classes with varying levels of support provided by the special education department. The survey Murray sent out consisted of six short-answer questions. Ten surveys were returned within the time allocated. Murray’s survey seemed to support the current research indicating the correlation between training and education of the teaching staff and the willingness of the teachers to educate SWD inclusively.

Murray's (2009) survey results showed that 80% of the respondents indicated having positive feelings toward instructing all children. Those that did respond within that 80% (three teachers) did mention that inclusion of all students was fine, "as long as there [was] support of a special education teacher" (p. 16). Two of the respondents felt negative about teaching SWDs; they stated reasons such as, "it takes more time" and "classroom numbers make it extremely difficult to give individual attention" (p. 16). Six out of ten respondents stated having little to no preparation from their teacher preparation programs to address inclusive education. All teachers who participated in the survey claimed they have received hardly any training provided by the school district either. This indicates a procedural issue that administrators need to keep in mind.

Klimaitis' (2020) qualitative study used teacher perceptions of important instructional practices for (STEM) lessons for SWDs. Her methods consisted of 13 interviews with teachers coming from 12 different schools in one suburban school division in Virginia. Deductive coding was used to analyze results. She identified instructional strategies, common barriers, and PD recommendations from this analysis. The findings were that several points could assist SWDs with accessing the STEM lessons. First, teachers/educators need to know the SWDs. There need to be relationships formed. Support staff and others should be used appropriately. Classes should have intentional groupings with assigned group roles. Hands-on learning should be taking place as much as feasible. Lastly, classroom modification helped SWDs gain access to STEM lessons. Additionally, Klimaitis stated that "student ability level, lack of adult support, and time limitations were identified as barriers for SWD participation in STEM lessons" (p. 1). This study identified barriers for SWDs regarding STEM lessons; however, many of the same barriers are present in the inclusive classroom throughout the curriculum.

***Finding 5***

Collaborative, co-teachers need to have equally shared teaching responsibilities.

**Analysis of Support Finding 5.** Responses to interview questions three and five gave the supporting data for Finding 5. It was noted by 88.8% of participants (1ESE, 2ESE, 3HGE, 4HGE, 5MSE, 6MGE, 7HSE, and 9HSE) that collaborative, co-teachers need to have equally shared teaching responsibilities. All eight of the participants agreed that having shared teaching responsibilities were crucial. The data for Finding 5 is represented by five special educators and three general educators with two elementary level educators, two middle school educators, and four high school level educators.

Hackett et al. (2021) defined the social phenomena of co-teaching as a bounded partnership between the co-teaching team. Collaboration “allows for varied expertise and perspectives about a student to be shared among those responsible for the student’s learning and well-being. Collaboration allows expertise and perspectives to be shared between the general educator and the special educator (McLeskey, 2017, Jones et al., 2008). Jones et al. (2008) continue by indicating that collaborative teaching is an educational approach where general and special educators work cooperatively in a supportive and coordinated manner to teach a diverse student body. Beninghof (2020) stated that co-teaching (or collaborative teaching) is a coordinated educational practice where two educators work with a heterogeneous group of students in the general education classroom setting, while Hentz (2018) defines co-teaching as two teachers sharing their intellectual expertise and instructional responsibility to create a conducive learning environment for all students. Friend et al. (2010) further stated that “the partnering of a general education teacher and a special education teacher or another specialist to jointly deliver instruction to a diverse group of students, including those with disabilities, or

other special needs, in a general education setting and in a way that flexibly and deliberately meets their learning needs” (p. 11). Hackett et al. (2021) defined the social phenomenon of co-teaching as a bounded partnership between the co-teaching team. According to Dieker and Murawski (2003), co-teaching involves two or more teachers who are equal in status working together in the classroom to provide instruction. Cook and Friend (1995) defined co-teaching as “two or more professionals delivering substantive instruction to a diverse or blended group of students in a single physical space” (p. 1).

### ***Finding 6***

Both collaborative, co-teacher partners need to know SWDs’ IEP needs and accommodations, and both, not just the special educator, need to meet those prescribed needs.

**Analysis of Support Finding 6.** Responses to interview questions two, three, four, and nine gave the supporting data for Finding 6. It was noted by 66.6% of participants (1ESE, 2ESE, 5MSE, 6MGE, 7HSE, and 8HSE) that both collaborative, co-teacher partners need to know SWD’s IEP needs and accommodations, and both need to meet those prescribed needs. The data for Finding 6 is represented by five special educators and one general educator with two elementary level educators, two middle school educators, and two high school level educators.

According to Hentz (2018), the co-teaching pairs must have a structure and format for planning. Having well-planned lessons is essential to being effective. She further summarizes that pairs need to analyze student data (such as IEPs, accommodations, and specially designed instruction) and identify the needs to guide instructional planning. With strong IEP relationships, data collection of students’ abilities, and establishing functional goals and strategies based on data, students’ education in the inclusive setting introduced SWDs into the community in a gradual fashion by supporting their skills in the LRE setting. Educators must make sure they are

designing, implementing, and adjusting a specialized curriculum and measuring improvements in their behavior over time (Devore et al., 2011; Dudley-Marling & Burns, 2014). Furthermore, this process emphasized the use of scientifically based best practices research (Anastasiou & Kaffman, 2011; Dudley-Marling & Burns, 2014). This research is a sharp contrast with the social constructivist stance on inclusion that stresses structural reform over individual remediation (Anastasiou & Kaffman, 2011; Dudley-Marling & Burns, 2014).

### ***Finding 7***

Administrators need to assist with common planning times and PD, for both general and special education teachers, and conduct ongoing monitoring of those partnerships.

**Analysis of Support Finding 7.** Responses to interview questions seven, eight, and ten gave the supporting data for Finding 7. It was noted by 55.5% of participants (1ESE, 2ESE, 5MSE, 7HSE, and 8HSE) that collaborative, co-teachers need to have access to common planning time. Of these five participants, 60% mentioned that these relationships need to have ongoing monitoring by administrators. All five of the participants were in agreement that adequate and relevant PD was needed. The data for Finding 7 is represented by five special educators with two elementary level educators, one middle school educator, and two high school level educators.

Districts, as well as individual school administrators, should be responsible to educate and refresh all staff on current practices and policies regarding inclusive education. Leaders need to keep in mind the current studies and research involving inclusive education in the K-12 public school setting to create an inclusive school culture. These findings should assist district leaders and administrators in developing viable collaborative, co-teaching inclusive practices in their school setting. For example, Austin's (2001) study showed that administrative support is

essential if collaborative teaching is to be effective. Austin writes, “An effective inclusive program requires the commitment of administrators, faculty, staff, and parents to provide the necessary allocation of human and material resources to increase the likelihood of its success” (p. 254). This commitment is vital for any successful educational program. It is even more important when dealing with SWD access to inclusive education.

Special education dynamics tend to bring about arduous situations that teachers and administrators must navigate, often daily (Bateman & Yell, 2019). School divisions must not provide a “program, aid, benefit, or service” (p. 5), that is equally effective as those provided to SWDs. Hentz (2018) details five steps for creating a co-teaching learning environment. First, collaborative, co-teachers need to “develop a collaborative relationship and be open to sharing information about expertise, teaching philosophy, and roles and responsibilities” (p. 5). Second, instructional procedures for the collaborative, co-taught class need to be established. Third, a physical environment conducive to the integration of the co-teaching approaches needs to be created. Fourth, pairs need to build a classroom community that fosters student-teacher and student-student relationships. Last, collaborative, co-teaching pairs need to identify the process for planning, integrating the specially designed instructional needs, and using data to inform instruction.

The following recommendations, derived from Austin’s (2001) study, indicate improvements in educational practice and areas for additional research. Collaborative pairs should offer feedback to one another regularly. Pairs should have shared classroom management, daily mutual planning time, and cooperative learning techniques. Also, instructional leaders need to keep in mind that seeking inclusive by thrusting students into educational environments where

they are unprepared—meaning both students and/or teacher and administration—is neither fair nor just (Anastasiou & Kauffman, 2011; Dudley-Marling & Burns, 2014).

### ***Finding 8***

Collaborative, co-teaching is built on each teacher’s professional skills and knowledge.

**Analysis of Support Finding 8.** Responses to interview question six gave the supporting data for Finding 8. It was noted by 100% of participants that collaborative, co-teaching built on their professional skills and knowledge. All nine of the participants agreed and supported this idea fervently. The data for Finding 8 is represented by six special educators and three general educators with two elementary level educators, two middle school educators, and five high school educators.

The results of Austin’s (2001) study indicated that collaborative, co-teaching pairs appreciated shared classroom management and instructional duties containing established and maintained specific areas of responsibility. However, these partners did not share these responsibilities in practice. Most collaborative, co-teachers interviewed conveyed the belief that the collaborative teaching strategies were effective in educating all students. There are several points that Austin observed from his results. One detailed benefit was the reduced student-teacher ratio. Austin also noted that having another teacher’s expertise and viewpoint were beneficial. The value of remedial strategies and review allowed all students, not just those with disabilities, to gain an understanding of the learning difficulties they may face.

The 12 randomly selected interviewees were chosen from the survey participants that had indicated a willingness to take part in the follow-up interview (Austin, 2001). Data findings revealed that the co-teachers found the experience to have, “considered...to have contributed positively to their PD” (p. 250). The special education co-teachers from the 12 interviewees

mentioned an increase in content knowledge while general education co-teachers commented on the benefits of the special education teachers' skills in classroom management and curriculum adaptation.

### **Data Points**

Additional collaborative, co-teaching practices that impacted pairs were communicated during the course of the interviews. Less than 50% reported these as practices that impact student achievement. Hence, these practices are not findings: instead, they are data points.

There were additional data points found in the research.

#### ***Data Point 1***

Collaborative, co-teachers' attitudes play a vital role in the success of these partnerships.

Responses to interview questions one, five, and ten gave the supporting data for Data Point 1. It was identified by 33.3% of participants (1ESE, 3HGE, and 4HGE) that collaborative, co-teachers' attitudes play a vital role in the success of these partnerships. The data for Data Point 1 is represented by one special educator and two general educators with one elementary level educator and two high school level educators. One elementary special educator stated,

I've been in a co-teaching experience that has not been positive and/or effective, and it's basically because of the attitude going into it and the expectation of the other teacher.

Some teachers are just against it, to begin with. They feel like that's their classroom; it's their way, and it is the attitude that you go into it that will make it effective. When [leaders] are putting a collaborative team together, they have and to look and see the attitudes that the teachers have and how each individual feels about collaboration.

This concept was further reiterated by two general education educators who agreed that as long as pairs were "open to learning and working with the other person and picking up things and don't have a negative attitude. It can always be a positive experience."



Orr (2009) identifies that according to the lived experiences of the co-researcher participants, three phenomena provided support and nurturing inclusionary practices. First, the school-wide pro-inclusion philosophy is beneficial. This school-wide culture aids in teachers not feeling as though they are, “alone against many when seeking inclusive learning environments for their students” (p. 235). Next, positive, and welcoming attitudes of general education teachers to both special education teachers and students fostered a conducive learning environment. This goes together with the third theme. General and special educators need to have a shared partnership. Orr (2009) remarked that even in the more inclusive settings, “co-researchers found a number of barriers to the practice of inclusion” (p. 232). Negative attitudes of general education teachers were the most frequently mentioned barrier. Teachers' attitudes, according to Murray (2009), are the primary factor that can cause inclusion to fail. Surveys conducted have shown that many teachers feel that they are not qualified to effectively teach students with special needs, do not have adequate training, cannot handle the levels of behaviors, cannot individualize instruction adequately, are resistant to collaboration with other professionals and do not have the administrative support” (p. 4).

### ***Data Point 2***

Collaborative, co-teachers need to be in the classroom when they are scheduled to be present.

Responses to interview questions nine and ten gave the supporting data for Data Point 2. It was noted by 22.2% of participants (3HGE and 4HGE) that collaborative, co-teachers need to be in the classroom when they are scheduled to be present. The data for Data Point 2 is represented by two general educators both being high school level educators. Both expressed that the special education teacher needed to be where they were supposed to be. They noted that it

was known in their school setting that some would have co-teachers listed on the schedule, but the special educator would never show up, or if the teacher did show up, he or she would not participate and give the impression that he/she was not invested in the classroom. The final thought given by both was that “it is important to meet ahead of time and to also be where you are supposed to be and to take part daily.”

### **Summary**

Interview participants’ responses demonstrated a variety of similar perspectives on strategies, communication, and PD factors impacting co-teaching collaborations in the K-12 inclusive classroom as well as the role of leadership in developing school culture. All participants reported that collaborative, co-teaching experience contributed to their professional knowledge and skills. Most of these teachers noted the need for common planning time, varied instructional strategies, clear expectations, shared responsibilities, and expertise that is built for each educator in a pair. Chapter 4 included the data analysis of the findings. Chapter 5 centers on the eight major findings, implications, and recommendations for future researchers.

## Chapter 5: Discussion of the Major Findings and Implications

### Introduction

The purpose of this qualitative study was to identify inclusive practices, strategies, communication, and professional development (PD) factors in collaborative, co-taught K-12 inclusive classrooms. The primary research question for this study was, *what practices and strategies are implemented in collaborative, co-taught K-12 classrooms?* The secondary questions were (a) *What strategies do co-teaching collaborations utilize?* (b) *What communications/collaborations between partners were utilized?* (c) *What additional training/support do co-teaching partners need from administrators?*

A gap was addressed in the literature by exploring and investigating the lived experiences of collaborative, co-teaching teams. Chapter 5 centers on the eight major findings, implications, and three recommendations for future researchers.

### Review of Major Findings

A finding in this study is considered major if over 50% of the participants responded similarly or equivalently. The eight major findings indicate that over 50% of the participants interviewed noted that the respective strategies were impactful in a K-12 collaborative, co-taught classroom.

Major findings align with specific research found in the literature review and analysis. ***Collaborative, co-teachers need to build relationships through trust, mutual respect, time, and support (Finding 1).*** During the focus group and one-on-one interviews participants discussed trust, respect, time, and support as necessities to building the collaborative, co-teaching relationship. For example, one participant (1ESE) stated that “once you get to know that teacher [co-teacher] on a personal level,” both become “stakeholders.” While seven of the participants

talk about the relationships concurred that co-teacher have to develop a relationship with the other person. One participant (3HGE) established that an “atmosphere of mutual respect is tantamount to the success of your [co-teachers] collaborative experience. While another (4HGE) stated that “respecting each other, and make sure that students saw that we [co-teachers] are equals” is essential. The participants (7HSE & 5MSE) further summarized that co-teachers’ working relationship will evolve, and it will be modified as the pair develop and grow over time; “It is going to take time, and both [co-teachers] need to be aware of that” while being open “to going back and forth and being honest with one another.”

***Collaborative, co-teachers need common clear time, clear expectations, and to work with one co-teaching partner instead of multiple partners to build viable relationships (Finding 2).***

During the interviews participants (1ESE, 2ESE, 5MSE, 7HSE, and 8HSE) noted the need from common planning time. Clear expectations were mentioned by (3HGE, 5MSE, 6MGE, 7HSE, and 8HSE); with one participant stating that co-teachers need to make “sure you are both on the same page about what you expect, and what you do not.” The other aspect of this finding dealt with co-teaching partners preferring to work with one partner instead of multiple partners from consecutive years. Participants (1ESE, 3HGE, 5MSE, 8HSE, and 9HSE) pointed out it is critical for administrators “to allow two teachers to work together for the next few years—when you are the same person, it helps.”

***Collaborative, co-teachers need to evaluate each other’s strengths and weaknesses and plan lessons accordingly (Finding 3).*** Participants (1ESE, 4HGE, 5MSE, 6MGE, and 7HSE) said that in order to create effective relationships with their collaborative, co-teaching partner, they had to be direct and honest when discussing strengths and weaknesses. One participant (5HGE) noted that during co-planning “paying attention to the teachers’ strengths and weaknesses” is needed.

Another (7HSE) stated, “if [one] knows in advance who you are going to me teaming with, I would encourage you to sit down and get to know each other; find out how you see a collaborative classroom working; discuss which models you think you would be comfortable using; and discuss pet peeves.”

***Collaborative, co-teachers use a variety of strategies to have effective classrooms (i.e., differentiated lessons, station teaching, scaffolding, team approach, and station teaching)***

**(Finding 4).** All nine participants discussed a variety of strategies that each found to be effective in their collaborative, co-taught classrooms. Two participants (1ESE & 6MSE) discussed the use of DI, while four discussed modified classwork. One participant (3HGE) “[tends] to think that one of the most effective and most positive experience [that she had] with collaborative teaching was when [her partner and her] established stations in the room; students would move from station to station.” She would teach a group while the special education teacher taught another, then, they would switch; at the end, they would all come together for the final lesson in which both educators delivered the instruction.

***Collaborative, co-teachers need to have equally shared teaching responsibilities (Finding 5).*** It was noted by eight of the participants (1ESE, 2ESE, 3HGE, 4HGE, 5MSE, 6MGE, 7HSE, and 9HSE) that collaborative, co-teachers need to have equally shared teaching responsibilities. All eight of the participants agreed that having shared teaching responsibilities were crucial. Statements such as “sharing the teaching responsibilities has worked well when the collaboration was in place the way that is should be;” “equal responsibilities, which is the main thing, and both being held accountable” were echoed by participants.

***Both collaborative, co-teacher partners need to know SWDs' IEP needs and accommodations, and both, not just the special educator, need to meet those prescribed needs (Finding 6).***

Participants (1ESE, 2ESE, 5MSE, 6MGE, 7HSE, and 8HSE) indicated that both collaborative, co-teacher partners need to know SWD's IEP needs and accommodations, and both need to meet those prescribed needs. This statement was made special educators but also one general education teacher. The one general education teacher that made this statement has only taught in a collaborative classroom setting; therefore, she reiterated the importance by stating that “[my co-teacher and I] follow our IEPs to a ‘T’ [...] my responsibilities are as a general education teacher, instruction and everything that comes along with that. But also, it is my job to read those IEPs at the beginning of the school year, and to know their needs, so that I can best assist them to be successful.”

***Administrators need to assist with common planning times and PD, for both general and special education teachers, and conduct ongoing monitoring of those partnerships (Finding 7).***

Five participants (1ESE, 2ESE, 5MSE, 7HSE, and 8HSE) noted that collaborative, co-teachers need to have access to common planning time. Of these five participants, all were in agreement that adequate and relevant PD was needed. One participant expressing that it would be helpful if administrators would “provide [PD], especially for teachers who are general education teachers and who have not done collaborative” to provide a “refresher on the lingo, and what all the different meetings mean, and what [educators] can and cannot do.”

***Collaborative, co-teaching is built on each teacher's professional skills and knowledge***

***(Finding 8).*** All nine participants indicated that collaborative, co-teaching built on their professional skills and knowledge. All nine of the participants agreed and supported this idea fervently. One participant remarked “absolutely, 100%, I love having another person in the

room. You get your best ideas from other people.” Another participant said, “for me, absolutely, because I am seeing another person teach, and I am observing how the students are reacting to the other teacher’s teaching [...] it has helped me to improve my teaching.”

The findings were shaped by the open-ended interview question responses. This study confirmed that the interview participants demonstrated some similar perspectives on strategies, communication, and PD factors impacting co-teaching collaborations in the K-12 inclusive classroom as well as the role of leadership in developing school culture. All participants reported that collaborative, co-teaching experience contributed to their professional knowledge and skills. Most of these teachers noted the need for common planning time, varied instructional strategies, clear expectations, shared responsibilities, and expertise that is built for each educator in a pair.

### **Practitioner Implications**

Building level instructional leaders might find it useful to consider the findings when determining collaborative, co-teaching inclusive classroom practices to implement. District-level school division leaders might consider the findings when supporting or developing policies and procedures for the implementation of collaborative, co-teaching inclusive classrooms.

Universities and colleges may consider the study findings for improvements to teacher preparation programs, principal preparation programs, and educational leadership programs.

Practitioner implications should assist administrators and leaders

***Collaborative, co-teachers need time to develop their relationship. Partners need adequate scheduling and support from the administration that includes guidance and clear expectations (Implication 1).*** Implication 1 aligns with Finding 1. To support partners with a collaborative, co-teaching arrangement, administrators should keep in mind that partners need adequate time to develop their relationship. This development can occur through adequate scheduling my

administrator and guidance departments. Also, administrators should set clear expectations for collaborative, co-teachers. These expectations should be monitored on an ongoing basis by building level administrators, while district leaders need to monitor the guidance that building level administrators are providing to partners.

***Collaborative, co-teachers need to have strong communication skills, set clear expectations, and perfect effective practices with one co-teacher instead of multiple partners (Implication 2).***

Implication 2 aligns with Finding 2. Administrators should offer support and guidance to collaborative, co-teaching partners. Effective communication skills need to be examined and modeled, while clear expectations for all parties involved (e.g., general educators, special educator, principal, guidance) need to be established beforehand. Participants expressed the desire for administrator to work on allowing collaborative, co-teacher partners to build viable relationships by allow teachers to stay in one partnership instead of multiple.

***Collaborative, co-teachers need to begin by discussing their strengths and weaknesses to determine the best practices to meet all students' needs (Implication 3).*** Implication 3 aligns with Finding 3. Administrations should offer guidance to the collaborative, co-teaching partners. As the instructional leader of the building, he or she should discuss strategies to discover one another's strengths and weaknesses. This discussion should allow partners to plan accordingly.

***Collaborative, co-teacher should receive PD on best practices and effective strategies that have research-based effectiveness in the collaborative, co-taught classroom (Implication 4).***

Implication 4 aligns with finding 4. Administrations should provide PD on best practices and effective strategies that are research-based. These PD would benefit by being school-wide, so all educators in the building would be able to grow professionally as well as build a sense of a professional learning community.



***Collaborative, co-teachers need to have strong communication skills, set clear expectations, and share teaching responsibilities equally (Implication 5).*** Implication 5 aligns with finding 5. Collaborative, co-teaching partners should keep in mind that they need adequate time to develop their relationship. This development can occur by communicating clear expectations as well as equally sharing teaching responsibilities. Also, administrators should set clear expectations for collaborative, co-teachers. These expectations should be monitored on an ongoing basis by building level administrators, while district leaders need to monitor the guidance that building level administrators are providing to partners.

***Collaborative, co-teachers need to review and discuss all SWD's IEPs. Both partners are responsible for knowing students' needs and are responsible for providing those services and accommodation (Implication 6).*** Implication 6 aligns with Finding 6. Both collaborative, co-teacher partners need to know SWD's IEP needs and accommodations, and both need to meet those prescribed needs. During this qualitative study, both special and general educators expressed this need. Administrators should support their educators by monitoring SWDs provided services, IEPs, and LREs, while continuously monitoring the collaborative, co-teaching partnership.

***Administrators should facilitate collaborative, co-teaching partnerships closely and support those relationships, especially during the onset of the partnership (Implication 7).*** Implication 7 aligns with Finding 7. Administrators should facilitate partnerships closely. Leaders should work to ensure that collaborative, co-teachers need to have access to common planning time, especially during the onset of the partnership. This common planning time should allow administrators to have regular discussions on the partnership's professional growth.

*Administrators need to support the partnership through PDs, not just monetary support*

**(Implication 8).** Implication 8 aligns with Finding 8. Participants indicated that collaborative, co-teaching built on their professional skills and knowledge. Leadership teams should provide adequate and relevant PDs, not just monetary support. Thus, administrations should provide PD on best practices and effective strategies that are research-based.

### **Policy Implications**

The US Department of Education (USDOE), the Virginia Department of Education (VDOE), and the local school district need to ensure that collaborative, co-teaching pairs are set up to provide services (e. g., small group setting, read alouds) in inclusive classrooms. This could be achieved by incorporating more collaborative, co-teaching practices in teacher programs across the state. Further, support from district level and building level administration to ensure that implementation of these effective strategies found in this study should assist the marginalized group SWDs to access the general education curriculum to the maximum extent possible. Lastly, local school districts could create policies to align with current federal and state laws to include collaborative, co-teaching to increase student achievement.

### **Suggestions for Future Research**

The study could be expanded to include multiple schools throughout the US, and possibly other countries. Thus, the sample size would increase, and the additional participants could lead to a more extensive set of responses. Data from this study would assist practitioners and scholars on the topic of collaborative, co-teaching strategies, communication, and PD factors impacting co-teaching collaborations in the K-12 inclusive classroom as well as the role of leadership. Further research on the particular findings of this study could be conducted. In-depth research on

each finding could obtain a more comprehensive understanding of collaborative, co-teaching strategies, communication, and PD factors that impact K-12 inclusive classrooms.

Research could be completed on the impact of administrative support for collaborative, co-taught pairs, in co-taught K-12 classrooms. Administrative support should be provided from the onset of the collaborative pairing. Also, administrators should be mindful of these findings when developing schools' master schedules. Further, leadership teams should conduct ongoing supportive monitoring of the collaborative, co-taught classrooms within their building and districts.

## **Conclusions**

The interview participants' responses demonstrated some similar perspectives on strategies, communication, and PD factors impacting co-teaching collaborations in the K-12 inclusive classroom. All participants reported that collaborative, co-teaching experience contributed to their professional knowledge and skills. Teachers noted the need for common planning time, varied instructional strategies, clear expectations, shared responsibilities, and expertise that is built for each educator in a pair. The major finding in this study on collaborative, co-teaching strategies, communication, and PD factors impacting co-teaching collaborations in the K-12 inclusive classroom as well as the role of leadership is aligned with the literature that was reviewed.

This research provides practitioners and scholars with currently lived experiences in the collaborative, co-taught inclusive classroom. The research is pertinent due to the recent Joint Legislative Audit and Review Commission (JLARC) (2020) Report 545 to the Governor and the General Assembly of Virginia entitled *K-12 Special Education in Virginia* and the assessments for stronger inclusive practices. The value of this study was that factors were identified that

impact co-teaching collaborations in the K-12 inclusive classroom. The need to support SWDs in a collaborative, co-taught setting has emerged more during the COVID-19 pandemic. The study of inclusive practices in the collaborative, co-taught K-12 classroom is important for raising awareness about the importance of this kind of teaching relationship for improving the learning environment for all students K-12 and increasing academic achievement.

## References

- Anastasiou, D., & Kauffman, J. M. (2011). A social constructionist approach to disability: Implications for special education. *Exceptional Children, 77*(3), 367-384.
- Armenakis, A. A., & Bedeian, A. G. (1999). Organizational change: A review of theory and research in the 1990s. *Journal of Management, 25*(3), 293–315.
- Austin, V. L. (2001). Teachers’ beliefs about co-teaching. *Remedial and Special Education, 22*(4), 245-255.
- Baglieri, S., Bejoian, L. M., Broderick, A. A., Connor, D. J., & Valle, J. (2011). [Re]Claiming “Inclusive Education” towards cohesion in educational reform: Disability studies unravels the myth of the normal child. *Teachers College Record, 113*(10), 2122-2154.
- Bateman, D. F., & Yell, M. L. (2019). *Current trends and legal issues in special education*. Corwin: Thousand Oaks.
- Bell, P. (2004). On the theoretical breadth of design-based research in education. *Educational psychologist, 39*(4), 243–253.
- Beninghof, A. M. (2020). *Co-Teaching that works structures and strategies for maximizing student learning* (2nd ed.). Jossey-Bass.
- Bondie, R. S., Dahnke, C., & Zusho, A. (2019). How does changing “one-size-fits-all” to differentiated instruction affect teaching? *Review of Research in Education, 43*, 336-362.  
<https://doi.org/10.3102/10091732X18821130>
- Brinkmann, J. L. (2012). *Perceptions of beginning general and exceptional teachers of their preparation and importance of skills associated with collaborative and co-teaching* [Unpublished doctoral dissertation]. Virginia Polytechnic Institute and State University.

- Bureau of Education for the Handicapped (DHEW/OE), Washington, DC. (1979). *Progress toward a free appropriate public education: A report to Congress on the implementation of Public Law 94-142: The Education for all handicapped children act.* (ED175196). ERIC. <https://eric.ed.gov/?id=ED175196>
- Casale-Giannola, D. (2012). Comparing inclusion in the secondary vocational and academic classrooms: Strengths, needs, and recommendations. *American Secondary Education*, 40, 26-42.
- Cook, L., & Friend, M. (1995). Co-teaching: Guidelines for creating effective practices. *Focus on Exceptional Children*, 28(3), 1-16.
- Creswell, J.W. & Poth, C.N. (2018). *Qualitative inquiry and research design choosing among five approaches* (4th ed.). Thousand Oaks, CA: Sage.
- Da Fonte, M. A., & Baron-Arwood, S. M. (2017). Collaboration of general and special education teachers: Perspectives and strategies. *Intervention in School and Clinic*, 53(2), 99-106. <https://doi.org/10.1177/1053451217693370>
- Devore, S., Milo, G., & Hader, J. (2011). Individualizing inclusion for preschool children using collaborative consultation. *Young Exceptional Children*, 14(4), 31-43.
- Dieker, L. A., & Murawski, W. M. (2003). Co-teaching at the secondary level: Unique issues, current trends, and suggestions for success. *The High School Journal*, 86(4), 1-13.
- Dorn, S., Fuchs, D., & Fuchs, L. S. (1996). A historical perspective on special education reform. *Theory Into Practice*, 35(1), 13-19. <https://dio.org/10.1080/00405849609543996>
- Dugan, K., & Letterman, M. (2008). Student appraisals of collaborative teaching. *College Teaching*, 56(1), 11-15.

Dudley-Marling, C., & Burns, M. B. (2014). Two perspectives on inclusion in the United States. *Global Education Review, 1*(1), 14-31.

Education for All Children Act. (1975), Pub. L. No. 94-142.

Every Student Succeeds Act, 20 U.S.C. § 6301 (2015).

<https://www.congress.gov/114/plaws/publ95/PLAW-114publ95.pdf>

Friend, M. (2008). *Co-teach! A handbook for creating and sustaining effective classroom partnerships in inclusive schools*. Marilyn Friend, Inc.

Friend, M. (2014). *Co-Teach! Building and sustaining effective classroom partnership in inclusive schools* (2nd ed.). Marilyn Friend, Inc.

Friend, M., Cook, L., Hurley-Chamberlain, D. A., & Shamberger, C. (2010). Co-teaching: An illustration of the complexity of collaboration in special education. *Journal of Educational & Psychological Consultation, 20*(1), 9–27.

Ford, J. (2013). Educating students with learning disabilities in inclusive classrooms. *Electronic Journal for Inclusive Education, 3*(1).

Geel, M., Keuning, T., Frèrejean, J., Dolmans, D., Merriënboer, J., & Visscher, A.

J. (2019). Capturing the complexity of differentiated instruction, school effectiveness and school improvement. *An International Journal of Research, Policy and Practice*, 30(1), 51-67. <https://doi.org/10.1080/09243453.2018.1539013>

Grazino, K. J., & Navarrete, L. A. (2012). Co-Teaching in a Teacher Education Classroom: Collaboration, Compromise, and Creativity. *Issues in Teacher Education*, 21(1), 109-125.

Grider, J. R. (1995). Full Inclusion: A practitioner's perspective. *Focus on Autistic Behavior*, 10(4), 1-11.

Hackett, J., Kruzich, J., Goulter, A., & Battista, M. (2021). Tearing down the invisible walls: Designing, implementing, and theorizing psychologically safer co-teaching for inclusion. *Journal of Educational Change*, 22, 103-130. <https://doi.org/10.1007/s10833-020-09401-3>

Harr-Robbins, J., Song, M., Hurlburt, S., Pruce, C., Danielson, L., Garet, M., & Taylor, J. (2012). *The inclusion of students with disabilities in school accountability systems* (NCEE 2012-4056). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U. S. Department of Education.

Hentz, S. (2018). Co-teaching essentials (pamphlet). *ASCD*.

[www.ASCD.org/Quickreferenceguides](http://www.ASCD.org/Quickreferenceguides)

Hogan, K. A., Lohman, M., & Champion, R. (2013). Effective inclusion strategies for professionals working with students with disabilities. *Journal of the American Academy of Special Education Professional*, 27-41.

Individuals with Disabilities Education Act, 20 U.S.C. § 1400 (2004).

<https://ies.ed.gov/ncser/pdf/pl108-1446.pdf>



- Joint Legislative Audit and Review Commission. (2020, December). Report to the governor and the general assembly of Virginia: K-12 special education in Virginia. *JLARC Report 545*. <http://jlarc.virginia.gov/pdfs/reports/Rpt545-1.pdf>
- Jones, M., Mandala, J., & Colachico, A. (2008). Collaborative teaching: Creating a partnership between general and special education. *The International Journal of Learning*, *12*(7), 203-207.
- Kauffman, J. M., & Smucker, K. (1995). The legacies of placement: A brief history of placement options and issues with commentary on their evolution. In J. M. Kauffman, J. W. Lloyd, D. P. Hallahan, & T. A. Assuto (Eds.), *Issues in the educational placement of pupils with emotional or behavioral disorders* (pp. 21-41). Hillsdale, NJ: Earlmaum.
- Klimaitis, C. C. (2020). *Instructional practices for science, technology, engineering, and mathematics (STEM) lessons for k–12 students with disabilities: Perceptions of teachers from a Virginia suburban school division* [Unpublished doctoral dissertation]. Virginia Polytechnic Institute and State University.
- Klimaitis, C. C., & Mullen, C. A. (2021). Access and barriers to Science, Technology, Engineering, and Mathematics (STEM) education for K–12 Students with Disabilities and females. In C. A. Mullen (Ed.), *Handbook of social justice interventions in education* (pp. 813-836). Springer.
- Klimaitis, C. C., & Mullen, C. A. (2021, March). *Deeper learning and 21st century skills in a Virginia-based elementary STEM program*. Poster presented at the Virginia Association of Colleges for Teacher Education and the Association of Teacher Educators virtual conference.

- Klimaitis, C. C., & Mullen, C. A. (2021). Including K–12 students with disabilities in STEM education and planning for inclusion. *Educational Planning*, 28(2), 27-43. <https://isep.info/wp-content/uploads/2021/04/ReducedSize.Journal.Volume28.2.pdf>
- Koh, M.-S., & Shin, S. (2017). Education of students with disabilities in the USA: Is inclusion the answer? *International Journal of Learning, Teaching and Educational Research*, 16(10), 1-17. <https://doi.org/10.26803/ijlter.16.10.1>
- Learning Disabilities Association. (1993). Position paper of full inclusion of all students with learning disabilities in the regular classroom. *Journal of Learning Disabilities*, 26, 594-598.
- Liasidou, A. (2012). Inclusive education and critical pedagogy at the intersections of disability, race, gender, and class. *Journal for Critical Education Policy Studies*, 10(10), 168-184.
- McLeskey, J., Barringer, M.-D., Billingsley, B., Brownell, M., Jackson, D., Kennedy, M., Lewis, T., Maheady, L., Rodriguez, J., Scheeler, M. C., Winn, J., & Ziegler, D. (2017, January). *High-leverage practices in special education*. Arlington, VA: Council for Exceptional Children & CEEDAR Center.
- Miles, M. B., Huberman, A. M., & Saldana, J. (2019). *Qualitative data analysis: A methods sourcebook*. (4th ed.). Sage.
- Mullen, C. A. (Ed.). (2021). *Handbook of social justice interventions in education*. Springer. (Volumes 1 & 2, “living reference work,” 57 chapters + index, 1,398 pp.). ISBN-10:3030358577
- Mullen, C. A., & Hunt, T. K. (2022). Emotional disability and strategies for supporting student outcomes: Interviews with K–12 special education teachers. *Teacher Development: An International Journal of Teachers’ Professional Development*.

Murray, A. (2009). Is inclusion effective? *Education Masters*, 84.

National Education Association, P.L. 94-142. (1978). *Related federal legislation for handicapped children and implications for coordination.*

<https://eric.ed.gov/?id=ED168251>

No Child Left Behind Act of 2001, P.L. 107-110, 20 U.S.C. § 6319 (2002).

<https://oese.ed.gov/offices/office-of-formula-grants/the-elementary-and-secondary-education-act-the-no-child-left-behind-act-of-2001/>

Orr, A. C. (2009). New special educators reflect about inclusion: Preparation and k-12 current practice. *Journal of Ethnographic & Qualitative Research*, 3, 228-239.

Osgood, R. L. (2005). *The history of inclusion in the United States*. Gallaudet University Press.

Parker, A., McHatton, P. A., & Allen, D. D. (2012). Elementary and special education pre-service teachers' understanding of collaboration and co-teaching. *Journal of Research in Education*, 22(1), 164-195.

Scanlon, D., & Baker, D. (2012). An accommodations model for the secondary inclusive classroom. *Learning Disability Quarterly*, 35, 212-224.

Section 504 of the Rehabilitation Act of 1973, 34 C.F.R. § 300.101 (1973). <https://>

<https://www.dol.gov/agencies/oasam/centers-offices/civil-rights-center/statutes/section-504-rehabilitation-act-of-1973>

Smith, V. M. (2012). *Co-Teaching: A case study of teachers' perceptions* [Unpublished doctoral dissertation]. Northeastern University.

Strogilos, V., Tragoulia, E., Avramidis, E., Voulagka, A., & Papnikolaou, V. (2017).

Understanding the development of differentiated instruction for students with and without disabilities in co-taught classrooms. *Journal of Disability & Society*, 32(8), 1216-1238.

Sukhai, M. A., & Mohler, C. E. (2016). *Creating a culture of accessibility in the sciences*. Academic Press.

Tienken, C. H. (2020). *Cracking the code of education reform: Creative compliance and ethical leadership*. Corwin Press, Inc.

Title 34 – education: Part 104 - nondiscrimination on the basis of handicap in programs or activities receiving federal financial assistance, 34 C.F.R. § 104.33 (2011).

<https://www2.ed.gov/policy/rights/reg/ocr/edlite-34cfr104.html>

Tomlinson, C. A. (2001). *How to differentiate instruction in mixed-ability classrooms* (2nd ed.). Association for Supervision and Curriculum Development.

Tucker, G. C. (n.d.). *What is differentiated instruction?* Retrieved from

<https://www.understood.org/articles/en/differentiated-instruction-what-you-need-to-know>

United States Department of Education. (1999). *Twenty-first annual report to Congress on the implementation of the Individuals with Disabilities Education Act*. Washington, DC: Author.

United States Department of Education. (2007). *Twenty-five years of progress in educating children with disabilities through IDEA*. Washington, DC.

<https://www2.ed.gov/print/policy/speced/leg/idea/history.html>

United States Department of Education, Office of Special Education and Rehabilitative Services. (2010). *Twenty-five years of progress in educating children with disabilities through IDEA*. Washington, DC. <https://www2.ed.gov/print/policy/speced/leg/idea/history.html>

Office of Special Education and Rehabilitative Services, US Department of Education United States (2017). *39th annual report to congress on the implementation of the Individuals with Disabilities Act, 2017*. (ED591108). ERIC. <https://eric.ed.gov/?id=ED591108>

Villa, R. A., & Thousand, J. S. (2016). *The inclusive education checklist: A self-assessment of best practices*. Dude Publishing, a division of National Professional Resources.

Virginia Board for People with Disabilities. (2017). *Assessment of Virginia's disability services system: Education*. Retrieved from [Assessment of Virginia's Disability Services System: Education \(wwrc.net\)](#)

Virginia Department of Education. (2019). *K-12 inclusive practices guide*.

Virginia Department of Education, Division of Special Education and Student Services (2010). *Regulations governing special education programs for children with disabilities in virginia*.  
[https://doe.virginia.gov/special\\_ed/regulations/state/regs\\_speced\\_disability\\_va.pdf](https://doe.virginia.gov/special_ed/regulations/state/regs_speced_disability_va.pdf)

Will, M. C. (1986). Educating children with learning problems: A shared responsibility. *Exceptional Children*, 52(5), 411-415. <https://doi.org/10.1177/001440298605200502>

Yale Poorvu Center for Teaching and Learning. (2017). *Inclusive classroom climate*. Yale University. <https://poorvucenter.yale.edu/ClassClimates>

## Appendix A: Demographic Survey for Collaborative, Co-Teachers

Research purpose: The purpose of this qualitative study was to identify inclusive practices, strategies, communication, and professional development (PD) factors in collaborative, co-taught K-12 inclusive classrooms.

- 1) Please, indicate your level of education.
  - a. Bachelor
  - b. Master
  - c. Educational Specialist
  - d. Doctorate
  - e. Other
  
- 2) How many years of service do you have teaching?
  - a. 0-5
  - b. 5-10
  - c. 10-15
  - d. 15-20
  - e. 20-25
  - f. 25-30
  - g. 30-35
  - h. 35+
  
- 3) How many years of collaborative, co-teaching will you have completed by the end of the 2021-2022 school year?
  - a. 0
  - b. 1
  - c. 2
  - d. 3
  - e. 4
  - f. 5+
  
- 4) What grade levels are you currently co-teaching?
  - a. K-2
  - b. 3-5
  - c. 6-8
  - d. 9-12
  
- 5) What content area(s) are you currently co-teaching?
  - a. Mathematics
  - b. Science
  - c. Social Studies/History
  - d. English
  - e. Other

- 6) Please select the one of the following that best describes you.
- a. General Education
  - b. Special Education
  - c. Other

Please provide your name and email address if you are willing to participate in the focus group interview portion of this study. Each focus group interview will be audio-recorded and consist of 10 questions, lasting 30-45 minutes. The interview will be conducted in person or via Zoom at the best available time for the participants. Jennifer L. Fleming will contact you via email to provide additional information and a consent form for your interview.

NAME \_\_\_\_\_

EMAIL ADDRESS \_\_\_\_\_

Jennifer L. Fleming  
Doctoral Candidate, Virginia Tech

### Appendix B: Literature Review of Collaborative, Co-teaching Strategies in K-12 Inclusion Classrooms

Author/Year	Purpose/Goals	Methods/Data Sources	Challenges for Stakeholders	Central Themes
Austin, Vance L. (2001)	Co-teaching, teachers' beliefs, inclusion	<p>“All participants were assessed by using a single survey instrument, The Perceptions of Co-Teaching Survey (PCTS)” (p. 247).</p> <p>“Of the 139 participants who returned the completed survey, 92 represented intact collaborative teaching partners. From this respondent pool, 12 co-teachers were interviewed” (p. 245).</p>	<p>“First, the final participant sample (N=92) was relatively small; however, every participant included in the study was a co-teacher with an identifiable partner who had also returned a completed survey” (p. 253).</p> <p>“A second limitation that may have influenced the findings involves the socioeconomic status and geographical location of the population sample” (p. 253)</p> <p>Thirdly, “the researcher must assume that the survey participants are responding candidly to the survey items; there is no way to verify the accuracy of the reported data” (p. 253).</p> <p>“The fourth factor that may have influenced the findings was the participants' predisposition to collaborative teaching as a desirable methodology...” (p. 253).</p>	<p>Teachers' beliefs about co-teaching</p> <p>“The popularity of the inclusion model in schools has been growing since the early 1990s” (Austin, 2001, p. 245).</p> <p>“Inclusion as it is currently defined, refers to the instruction of all students, with and without disabilities, in the general education classroom, unless substantial evidence is provided to show that such a placement would not be in the student's best interests” (Austin, 2001, p. 245; Learning Disabilities Association [LDA], 1993; U.S. Department of Education, 1999).</p>
Bondie, Ronda S., Dahnke, Christina, & Zusho, Akane (2019)	Differentiated instruction, educational practice, teaching method	<p>“Extant research literature was found through a computer-based search across ERIC, PsycInfo, and JSTOR, which was limited to peer-reviewed journal articles published from 2001 to 2015 inclusively. In addition, a hand</p>	<p>Most of the 28 studies reviewed were on the elementary or middle school level.</p> <p>“Our review highlights a number of gaps in the literature on differentiated instruction, including (a) inconsistent theoretical framing and subsequent operationalization of differentiated instruction, including (b) uneven focus in terms of student populations, (c) and overall lack of methodological rigor in studies of differentiated instruction that explore its effects on student outcomes” (p. 356)</p>	<p>Findings were by “the two research questions. First, we examined changes in teacher practices by exploring frameworks and theories supporting and defining differentiated instruction, operationalization of differentiated instruction in the classroom, and reported barriers and facilitators of differentiated instruction. Second, we examined patterns from the studies to define differentiated instruction” (p. 344).</p> <p>“In this framework, student differences were more narrowly defined primarily in terms of ability, and the need for teacher perception was reduced because teachers relied on researcher-designed ongoing assessments to detect student variance. In contrast, Tomlinson's framework encouraged teachers to notice a wide range of student differences including language, culture, and personal interest as factors that may influence teacher</p>



		search of top-tiered journals was completed. Finally, a hand search of school and curriculum journals was completed” (p. 337).		decisions in planning instruction to leverage student strengths or minimize challenges “(p. 346).
Dudley-Marling & Burns, Mary Bridget (2014)	Inclusion, equity, deficit perspective on inclusion, social constructivist stance on inclusion	Literature Review on the contrasting viewpoints of disability—a deficit stance and a social constructivist perspective—the effects of these views on the meaning of inclusion, the purpose of inclusion, and how inclusive education is achieved (p. 14)	The passage of the Public Law 94-142, Education for All Children Act, AHCA or EHA, mandated that all SWD be provided with “a free and appropriate education in the LRE” (Osgood, 2005, p. 105; Dudley-Marling & Burns, 2014, p. 14). “Prior to the enactment of the landmark Education for All Children Act, AHCA or EHA, or Public Law (PL) 94-142, only one in five SWD in the US were educated in public schools” (Dudley-Marling & Burns, 2014, p. 14). As stated by Dudley-Marling and Burns (2014) special education is undergirded by assumptions of normality—and abnormality (p. 18). They continue by stating the assumption that human traits and abilities tend to cluster around a mean of normality (p. 18).	“Prior to the enactment of the landmark Education for All Children Act (also known as Public Law 94-142), only one in five SWD in the US were educated in public schools” (p. 14).
Dugan, Kimberly & Letterman, Margaret (2008)	Assessment, collaborative teaching, co-teaching, educational assessment, student learning, student perceptions, team teaching	“Data for this study are primarily quantitative. Data were derived from a survey of students and faculty participants in team-taught courses at three New England	“Results of this study cannot be generalized to the population because of sample size; however, the findings suggest that students prefer team-taught courses with truly collaborative teaching methods” (p. 14).	“Whereas student evaluations were similar in traditional classes taught by one instructor versus team-taught formats, students’ quantitative results indicate a preference for the co-teaching dyad over the alternate-teaching dyad” (p. 14)

		universities. Surveys were administered in the classrooms...” (p. 12)		
Ford, Jeremy (2013)	Inclusion, LRE, learning disabilities, social justice	<p>“This paper describes three strategies that can be used to successfully educate students with LD in inclusive classrooms” (p. 5)</p> <p>“Three methods for including students with LD in inclusive classrooms. This discussion will include co-teaching, differentiated instruction, and peer-mediated instruction and interventions” (p. 5)</p>	<p>“Research regarding the effectiveness of co-teaching is limiting” (p.6)</p> <p>“A great deal of research exists that sheds light into the effectiveness of full inclusion and resource or pullout services” (p. 10-11)</p>	<p>“There is great debate over including SWD, in particular students with learning disabilities, in inclusive classrooms. Several strategies are available to support educating students with learning disabilities in inclusive classrooms including co-teaching, differentiated instruction, and peer-mediated instruction and interventions. Theory suggests the practice of inclusion is congruent with social justice, but evidence suggests mixed results regarding academic achievement typically occurs” (p. 2)</p> <p>“The LRE mandate in the Individuals with Disabilities Education Act (2004) makes clear that educating SWD in inclusive classrooms is preferred” (p. 3)</p> <p>“PMII is a set of alternative teaching strategies that employ the use of students as instructors for students in their class” (p. 9)</p> <p>“The practice of inclusion has had greater success at the elementary level compared to the secondary level” (p. 11-12)</p> <p>“In regard to the academic classrooms, Casale-Giannola (2012) found that teachers lacked strategies to support SWD and were unaware of law pertaining to special education as well as student classifications and needs. A lack of co-teaching collaboration with most schools using the One Teach; One Assist model was also found as was limited use of student assessment to help determine instructional planning” (p. 12)</p> <p>“However, the skills required to implement such practices (e.g., co-teaching, differentiated instruction, peer-mediated learning) likely take time to develop” (p. 13)</p> <p>“In such situations, developing the capacity of school staff to meet the needs of students with LD, and other diverse learners, through inclusive practices could be made a priority” (p. 15).</p>
Graziano, Kevin J. & Navarrete, Lori A. (2012)	Collaboration, innovative practices, high education	Higher Education students’ views on co-teaching were based on observations, informal	“Educational reform that leads to an increase in K-12 student achievement starts with effective teacher preparation programs that include curricula for addressing the learning, language, and	<p>“Co-teaching in its most effective form can promote equitable learning opportunities for all students” (p. 109).</p> <p>“Co-teaching has become a common strategy in K-12 for addressing the increasingly diverse learning needs and academic levels of students in one classroom” (p. 110)”</p>

		discussions, and course evaluations.	social needs of a diverse student population” (p. 123).	“Co-teaching between special and general educators is now a common approach to effective inclusion in K-12 schools” (p. 110).
Hogan, Kathleen A., Lohmann, Marla, & Champion, Rose (2013)	Inclusion, SWD, United States, public education	Literature Review—the purpose of the article was to provide collaboration strategies to help make the general education teachers’ job a little less difficult (p. 27)	Numerous references and sources were used; however, it was close-ended. There were no suggestions for further investigation, nor did this include any data collection.	<p>“There are approximately six million special education students in the US (USDOE, 2011)” (p. 27)</p> <p>“Collaboration is best used in inclusive classrooms where the general and special education teacher team-teach together to meet the needs of all students in the classroom” (p. 27)</p> <p>“Collaboration is important for several reasons and can be beneficial for all students. First, schools are lengthy required to utilize collaboration for inclusion; IDEIA (2004) (20 U.S.C. § 1400) states that SWD must be educated with nondisabled peers to the maximum extent possible” (p. 27)</p> <p>“While collaboration is necessary and beneficial, it is not easy to accomplish” (p. 27)</p> <p>“The main issues facing educators in today’s inclusive classrooms are that (a) special educators are unfamiliar with general education curriculum (Conderman &amp; Johnston-Rodriguez, 2009), (b) general educators have limited knowledge of inclusion strategies (Conderman &amp; Johnston-Rodriguez, 2009), and (c) there is often infrequent communication between general and special education teachers (Conderman &amp; Johnston-Rodriguez, 2009; Haynes &amp; Jenkins, 1986)” (p. 27-28)</p>
Klimaitis, Cindy C. (2020)	access, barriers, instructional practices, PD	This study identified key instructional practices for science, technology, engineering, and mathematics (STEM) lessons for students with disabilities (SWD) based on the perceptions of teachers.	“The major limitation of this study is that the data are from one suburban school division in Virginia. Urban and rural school divisions were not included in the study. Different divisions within the Commonwealth of Virginia, as well as other states, may not have the same STEM initiatives and requirements. As a former special education teacher, the researcher may have preconceived notions as to what is most helpful for SWD in the classroom. As a principal, the researcher is aware that some teachers are not always cognizant of the requirements for implementing IEPs for	<p>Results were analyzed using deductive coding to identify instructional practices, barriers, and recommended PDs. Findings suggest that knowledge of the SWD, building relationships, use of support staff and others, intentional grouping, assigned group roles, hands-on learning, and classroom modifications helped SWD gain access to STEM lessons. In addition, student ability level, lack of adult support, and time limitations were identified as barriers to SWD participation in STEM lessons. Finally, teachers believe that PD is needed in teacher collaboration and student disability knowledge.</p> <p>“The study identified barriers for SWD and what kind of PD is needed to help teachers provide inclusive STEM lessons” (p. 1)</p>

		This basic qualitative study consisted of 13 interviews (5 elementary, 4 middle, and 4 high schools) with teachers from 12 schools.	SWD in the general education setting, especially for transient students and for teachers who serve a large number of SWD. To monitor bias, the researcher avoided inserting opinions and only collected data on participant responses. In addition to this, the researcher maintained a focus on information derived from the literature. To help obtain honest opinions and viewpoints from participants, no teachers from the researcher's school participated in the study" (pp. 6-7)	
Klimaitis, Cindy C. & Mullen, Carol A. (2020)	Access; Barrier; Elementary level; Females; Inclusion; K-12 students with Disabilities; STEM education; twenty-first-century skills	Article	Challenges are addressed in Klimaitis' dissertation	Barriers to Inclusive Education for SWD At least seven barriers to inclusive education for SWD exist. School personnel inadvertently think and act in isolated ways rather than working together as collaborators. Teachers and principals lack knowledge and skills. Resistance to trying new ways to serve SWD. Lack of knowledge and training targeting inclusive education practices. Lack of meaningful instructional, environmental, and testing accommodations. Low expectations for SWD (VDOE 2020). Lack of mentors (Sukhai and Mohler 2016)
Koh, Myung-sook & Shin, Sunwoo (2017)	Inclusion, inclusive education, teacher preparation, perceptions of inclusion, elementary teachers	A comprehensive review of the literature from 30 years of practice and current teacher preparation programs (p. 1)  The purpose of this study was to investigate how much inclusive education has	"As a result of the varying perspectives for best practice in teaching SWD, there have been vague roles for general education and special education teachers, and insufficient planning and preparation to support the needs of SWD involved in the inclusion movement" (Dorn & Fuchs, 1996; Kauffman & Smucker, 1995; Will, 1986; Koh & Shin, 2017, p. 5). Limitations were the study was not able to review all teacher prep programs offered in the United States (p. 13). The literature used was only from the ERIC database (p. 13)	"American society has continued to question the most appropriate way to educate SWD. Whether teaching students with and without disabilities in the same classroom is the best practice has become the most controversial topic in education" (p. 1) "The key question is, then, what are the results of these changes? How has inclusive education in the United States progressed toward providing the best education to both students with and without disabilities? Are the changes and efforts to improve inclusive education over the past three decades effective? Is the education of SWD in a general education setting working for all involved? Is the inclusion movement now supported by empirical evidence?" (p. 2)

		<p>progressed toward the goal of providing the best education to SWD (p. 5)          “Among 40 peer-reviewed studies on academic outcomes, a little less than 50% utilized standardized measures involving pre- and post-testing before and after inclusion practices. Approximately 28% used self-reported data, such as interviews, surveys, etc., and another 28% used existing records such as state-wide test results, report cards, graduation rates, referral rates, etc. Some studies utilized more than two measures” (p. 10).</p>	<p>This study did not include international/European studies/research (p. 13-14)</p>	<p>“In addition, once teachers are in the field, the practice of co-teaching could bring more confidence and strategies into the successful teaching of all students in inclusive classrooms (DaFonte &amp; Barton-Arwood, 2017; Strongilos, Tragoulia, Avramidis, Voulagka, &amp; Papnikolaou, 2017).” (p. 14)</p>
<p>Murray, Allison (2009)</p>	<p>Inclusion, education, special education</p>	<p>“A survey was conducted in a small rural school district and seems to support the current research indicating the correlation</p>	<p>Other items to consider when addressing the idea of whether inclusion is successful or not (p. 18)          Need to conduct research with more equal comparison (p. 18)</p>	<p>“In the conclusion of the research, one can state that success for special education students in a regular education environment can be attained depending on the level of needs of each student and the support given to all people participating in the efforts” (p. 4)          “Teacher's attitudes are the primary factor that can cause inclusion to fail. Surveys conducted have shown that many teachers feel that they are not qualified to effectively teach</p>

		<p>between the training received and the willingness of teachers to educate students that have disabilities” (p. 2)</p> <p>“The purpose of the survey was to determine how teachers’ background, training, and support shape their views of teaching SWD” (p. 14-15).</p> <p>“The survey conducted seems to support the current research indicating the correlation between the training received and the willingness of teachers to educate students that have disabilities” (p. 17)</p>		<p>students with special needs, do not have adequate training, cannot handle the levels of behaviors, cannot individualize instruction adequately, are resistant to collaboration with other professionals, and do not have the administrative support” (p. 4)</p> <p>“For inclusion to be successful, there need to be many resources in place. These resources may include pull-out programs, STEM technology, additional training for teachers, and the use of paraprofessionals” (p. 11)</p> <p>“Because inclusion/mainstreaming is so widespread, education majors of all subjects should have the appropriate coursework necessary to prepare them for the reality of having students with IEPs in their classroom” (p. 18)</p>
Orr, Ann C. (2009)	Inclusion, barriers to inclusion, special education	<p>“This interview-based study explores new special educators’ lived experiences with inclusion” (p. 1)</p>	<p>“Limitations of this study are focused primarily on the sample, a finite group of 15 co-researchers. A larger sample may have produced more and/or stronger themes” (p. 237).</p> <p>“The sample was limited to special educators only, so we are left wondering</p>	<p>“Despite legislation and the best efforts of special educators, SWD continue to be segregated from the general education curriculum and classroom for a majority or part of the school day” (Orr, 2019, p. 228).</p> <p>“Inclusion is often the goal but is seldom fully implemented” (p. 228)</p>

		<p>“15-co-researchers ...purposive sampling “(230)</p>	<p>about the inclusion-related lived experiences of new general educators” (p. 237).          “An additional weakness was the absence of a second coder” (p. 237).</p>	<p>“Barriers to inclusion include negative attitudes of general education teachers, essential personnel’s lack of knowledge of inclusionary practices, and insufficient administrative support” (p. 228).</p>
<p>Parker, Aundra, McHatton, Patricia Alvarez, &amp; Allen, Diedre D.</p>	<p>Collaboration, pre-service teachers, co-teaching, inclusion</p>	<p>“This study explored 46 elementary and special education pre-service teachers’ constructions of collaboration and co-teaching as they partnered for a combined classroom management course and a field experience” (164).</p>	<p>“Reports of general and special education teachers’ experiences in co-teaching partnerships are highly contextualized and as such the research findings are mixed” (169).          “A total of 58 pre-service teachers, 33 elementary education majors, and 25 special education majors, enrolled in the course and linked field experience. Of these 46 pre-service teachers (21 elementary education majors and 25 special education majors) who consented to 175 <i>Journal of Research in Education</i> 22(1) participate in the study. These were typical-aged students and were representative of the demographics of pre-service teacher education students” (174-175).</p>	<p>“Regardless of the nature of their placement, all co-teaching pairs were initially required to make arrangements to plan and teach three lessons together. As the semester progressed, it became clear this was not feasible for several pairs, and both the special education and general education pre-service teachers were allowed to co-teach with their supervising teacher or another pre-service teacher in their program in lieu of the original expectation (authors, 2010). As such, they experienced ‘co-teaching’ in the field experience in a different sense than originally intended. Finally, all of the pre-service teachers attended three one-hour seminars spread throughout the semester to debrief their overall experiences” (174).</p>
<p>U.S. Department of Education (2012)</p>	<p>Inclusion, Students with Disabilities, Accountability Systems</p>	<p>“To address the research questions about the inclusion of SWD in school accountability systems and the AYP and school improvement status of SWD-accountable schools, the study team analyzed data from extant sources using a variety of analytic methods” (11).</p>	<p>“EDFacts is periodically updated to reflect amended data provided by the states, and data used in this interim report were obtained at different points in time” (11).          “Lastly, it is possible that EDFacts and the other data sources used may contain reporting errors. This study did not attempt to identify and correct reporting errors; instead, the study team analyzed the data as reported by the states” (12).</p>	<p>“In the 2008–09 school year, 6.5 million SWDs ages 3 to 21 received special education services in the United States, making up 13% of the total public-school enrollment (National Center for Education Statistics 2010)” (1).          “Achievement gaps between SWD and their non-disabled peers also have been reported on the National Assessment of Educational Progress (NAEP). Using 2003, 2005, and 2007 NAEP results, Blackorby, and colleagues (2010) found that SWD in grades 4 and 8 performed significantly lower than non-disabled students in both reading and mathematics. This gap persisted in 2009. As the 2009 NAEP results show, 19% of fourth graders with disabilities scored proficient or above on the 2009 NAEP mathematics, in comparison with 41% of their non-disabled peers. For eighth graders, 9% of SWDs and 35% of non-disabled students scored proficient or above (National Center for Education Statistics 2009a). In reading, 12 percent of fourth graders with disabilities scored proficient or above,</p>

		<p>“This report draws primarily on school-level data reported by states through EDFacts, a U.S. Department of Education (ED) initiative to collect and place K–12 performance data at the center of policy, management, and budget decisions” (11).</p>		<p>compared with 34% of non-disabled students. For eighth graders, 8% of SWD and 33% of non-disabled students scored proficient or above (National Center for Education Statistics 2009b)” (1)</p>
<p>Virginia Board for People with Disabilities (2017)</p>	<p>Assessment of Virginia’s Disability Services System: Education</p>		<p>Prevalence of disability categories among students receiving IDEA services in Virginia as reported on December 1 child count data (VDOE 2009-2015) Virginia’s school-age least restricted environment (LRE) data (special education performance reports 205-2015) ...</p>	<p>In the 2017 Annual Report to the Governor by the Virginia Board for People with Disabilities (VBPD), the Board acknowledged the difficulty of defining inclusion (VBPD, 2017, 1). Nonetheless, the Virginia Board for People with Disabilities shared that within the context of the LRE, IDEA creates “a statutory preference for the provision of educational services to SWD in the regular education classroom. This statutory preference can only be overridden when education cannot be satisfactorily provided in that setting, even with the use of supplementary aids and services” (VBPD, 2017, p. 1). In addition, the VBPD’s report, Assessment of Virginia’s Disability Services System: Education, noted that inclusion “is often used to refer not only to the physical presence of a child with a disability in a regular education classroom but also to the effective delivery of services in that classroom in a way that allows the child with a disability to be an active participant of the classroom community.” (2017, p. 1)</p>
<p>Virginia Department of Education Department of Special Education and Student Services, Office of Special Education Instruction (2019)</p>		<p>“This guide aligns with those efforts as it illustrates what inclusive education looks like in practice and offers support to school divisions</p>	<p>“School divisions are required to report the percentage of “time spent in regular education” for SWD” (7). “This figure represents the total time at school from initial arrival to end of the day dismissal and includes all instructional time plus lunch, recess, study periods, as well as instruction in community-based</p>	<p>“As educators, finding methods to meet the academic needs of SWD can be challenging, particularly in school divisions and regions with limited resources. Inclusive education has proven effective in promoting positive student outcomes through strategies that focus on fully engaging all students regardless of their disabilities or other learning challenges. Inclusive education, as required in federal and state regulations, encompasses practices that concentrate on creating meaningful</p>



		<p>and parents seeking to improve outcomes for SWD. It also serves as a reference to PD and technical assistance from the Virginia Department of Education” (5).</p>	<p>educational and work settings outside of school” (7). “Review of national LRE data reflected varying levels of participation in the regular classroom by students with varying disabilities” (7). “The U. S. Department of Education 39th Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act, 2017 reported that 62.7% of students, ages 6 through 21, served under IDEA, Part B, were spending 80% or more of the day in regular education. About 14 percent were spending less than 40% on regular education. However, almost one-half of students with intellectual disabilities (49.7%) and with multiple disabilities (46.2%), and one-third of students with autism (33.2%), were spending less than 40% of the school day in regular education (USDOE, 2017). The percentages for time spent in regular education for SWD in Virginia are comparable to federal trends. According to the annual report to Congress, in 2016-2017, 64.23% of Virginia’s SWD, ages 6 through 21, served under IDEA, Part B, we are spending 80% or more of the day in regular education. About 11.42% were spending less than 40% on regular education. The report also noted that in Virginia, over one-half of students with intellectual disabilities (52.91%) and with multiple disabilities (52.45%), and slightly less than one-third of students with autism (28.15%), were spending less than 40% of the school day in regular education. The students who spend less than 40% of their day in the general classroom may only be participating in</p>	<p>access to instruction for all students across academic, social, and physical environments” (5). “According to the Individuals with Disabilities Education Improvement Act of 2004 (IDEA 2004), extensive research and experience have demonstrated that the education of children with disabilities can be made more effective by maintaining high expectations for students while ensuring their access to the general education curriculum in the regular classroom as appropriate. For many children with disabilities, this means receiving individualized educational and behavioral supports to address students’ specific learning differences and needs” (5). “Currently, there is not one universally accepted definition of inclusion; the definition varies in the context of theory and practice. In the 2017 Annual Report to the Governor by the Virginia Board for People with Disabilities (VBPD, 2017), the Board acknowledged the difficulty of defining inclusion. Nonetheless, the Virginia Board for People with Disabilities (2017) shared that within the context of the LRE, IDEA creates “a statutory preference for the provision of educational services to SWD in the regular education classroom. This statutory preference can only be overridden when education cannot be satisfactorily provided in that setting, even with the use of supplementary aids and services” (VBPD, 2017, p. 1). In addition, the VBPD’s report, Assessment of Virginia’s Disability Services System: Education, noted that inclusion “is often used to refer not only to the physical presence of a child with a disability in a regular education classroom but also to the effective delivery of services in that classroom in a way that allows the child with a disability to be an active participant of the classroom community.” (2017, p. 1)” (8).</p>
--	--	--	---	---

			the general classroom with their peers for non-academic activities, such as lunch and recess” (7).	
--	--	--	--	--

## **Appendix C: Teacher Interview Protocol on Collaborative, Co-teaching Experience**

**Title of the Research Study:** Examining Co-Teaching Collaboration in the K-12 Inclusive Classroom

**Principal Investigator:** Carol A. Mullen, PhD, Educational Leadership & Policy Studies, Virginia Polytechnic Institute and State University

**Co-Investigator:** Jennifer L. Fleming, Educational Leadership & Policy Studies, Virginia Polytechnic Institute and State University

*Each interview will be conducted in person or through Zoom by Jennifer L. Fleming.*

### **Interviewer:**

Thank you so much for allowing me to interview you. Before we begin, I would like to tell you a little about this study. The purpose of this qualitative study is to identify strategies, communication, and professional development factors impacting co-teaching collaborations in the K-12 inclusive classroom. This is a qualitative study investigating the lived experiences of collaborative, co-teachers. The criterion for participation is at least one year of experience in an inclusive, collaborative, co-taught K-12 classroom. Your participation will require no more than 30 to 45 minutes. I will be interviewing between 6 and 45 of these stakeholders, and then I will analyze the responses and look for common themes, similarities, differences, and patterns.

I will be recording this interview audio-only, so we will turn off our cameras. Your information will be identified with a number. The interview will be transcribed, and you will receive the transcription. Upon reviewing the transcript, you may make changes in the transcription you believe are necessary. The audio and transcription will be stored on a secured Virginia Tech Google Drive and destroyed three years after the successful completion of the study. Only the principal investigator and I will have access to this data.

There is no compensation for participating, and the risk to you is minimal. Through your participation and those of others, the inclusive education learning community will benefit by having additional information on utilized practices in the collaborative, co-taught K-12 classroom. At any time, you are free to withdraw from this study with no penalty to you. Do you wish to participate? Do you agree to be audio-taped? Do you have any questions prior to beginning?

Opening Statement: Thank you for agreeing to take part in this study. If at any point during this interview you feel uncomfortable or do not wish to answer a specific question, please, let me know. Do you have any questions for me before we get started?

1. How would you describe your collaborative, co-teaching arrangement, and how does it function or operate?

2. Would you describe the nature of your collaborative, co-teaching experience as generally positive (effective) or problematic (ineffective), or mixed? Please, elaborate.
3. What type of instructional techniques, classroom management strategies, and/or curriculum adaptations are in your collaborative, co-teaching?
4. What are your responsibilities in the collaborative, co-taught classroom?
5. What are the determining factors of effective collaborative, co-teaching? How would you describe an effective collaborative, co-teaching classroom?
6. Has the collaborative, co-teaching experience contributed to your professional knowledge and skill?
7. What type of support is provided by the school to facilitate your collaborative, co-teaching assignment?
8. In your opinion, how might school division/administrators improve the collaborative, co-teaching experience in your building?
9. In your opinion, how might stakeholders (like teachers/staff and parents) contribute to making the collaborative, co-teaching experiences in your building as positive as possible?
10. What tips and lessons have been learned that you would provide to teachers potentially interested in collaborative, co-teaching?

**At the end of the interview:**

Thank you so much for your time and your willingness to share your experiences in elementary science education. I will be sending you the transcript and would love to share with you the analysis of the data if you are interested after the dissertation defense.

## **Appendix D: Informed Consent for the Interview**

### Information Sheet for Participation in a Research Study

**Principal Investigator:** Dr. Carol A. Mullen

**Investigator:** Jennifer L. Fleming

**IRB# and Title of Study:** IRB# 22-135; Examining Co-Teaching Collaboration in the K-12 Inclusive Classroom

You are invited to participate in a research study. This form includes information about the study and contact information if you have any questions.

I am a doctoral candidate in the Educational Leadership and Policy Studies program at Virginia Tech, working under the direction of Dr. Carol A. Mullen, and I am conducting this research as part of my course work.

#### ➤ WHAT SHOULD I KNOW?

If you decide to participate in this study, you will complete a demographic survey, first, then a focus group interview, second upon selection. The topic of my dissertation study focuses on factors impacting inclusive practices in the collaborative, co-taught K-12 public school classroom as well as identifying potential strategies for encouraging and improving inclusive practices based on teacher perceptions. I also hope to gain teacher input on what practices and procedures school districts can implement to address the needs of exceptional students. Criteria for participating in this study include (1) general education or special education teachers and (2) must have 1 or more years of experience in an inclusive, collaborative, co-taught K-12 classroom. This study will be a basic qualitative study that will include four-six focus group interviews lasting 30 to 45-minute with participants, conducted by me (investigator), Jennifer L. Fleming in person or via an electronic platform, Zoom. Each of the focus group interviews will be audio-recorded to transcribe responses for data analysis. I would like to interview collaborative, co-teachers at the primary, middle, and high school levels. The four-six focus groups would be divided into general education groups and special education groups for each level. At no time will their involvement disrupt their daily teaching responsibilities. The research study will conform to the requirements set forth by the Virginia Tech IRB. Additionally, findings from this study may be published and potentially prove beneficial to teachers, administrators, and board members seeking to support public education.

The study should take approximately 30-45 minutes of your time.

The risk associated with this study is the possible awareness of uncomfortable and unpleasant thoughts associated with the past or the present may arise or increase. The study has minimal

risks that are no more than you would encounter in everyday life. We do not anticipate any risks from completing this study.

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don't want to answer and remain in the study. The investigator may withdraw you from this research if circumstances arise that warrant doing so.

➤ CONFIDENTIALITY

We will do our best to protect the confidentiality of the information we gather from you, but we cannot guarantee 100% confidentiality.

Any data collected during this research study will be kept confidential by the researchers. Your interview will be audio-recorded using a digital recorder and then transcribed. The researchers will code the transcripts using a pseudonym (false name). The recordings will be uploaded to a secure password-protected computer in the researcher's office. The researchers will maintain a list that includes a key to the code. The master key and the recordings will be stored for 3 years after the study has been completed and then destroyed.

➤ WHO CAN I TALK TO?

If you have any questions or concerns about the research, please feel free to contact Jennifer L. Fleming or Dr. Carol A. Mullen. You are not waiving any legal claims, rights, or remedies because you are participating in this research study. If you have questions regarding your rights as a research participant, contact the Virginia Tech HRPP Office.

***Please print out a copy of this information sheet for your records.***

**Appendix E: Email to Superintendent, Requesting Permission to Conduct Study****Subject Line:** Requesting Permission to Conduct Study

February 10, 2021

Dear [REDACTED]:

Thank you for your continued support of my doctoral work in the Educational Leadership and Policy Studies program at Virginia Polytechnic Institute and State University. I am working under the direction of Dr. Carol A. Mullen. I have proposed a research study that, once completed, will become my doctoral dissertation. The purpose of this letter is to provide an overview of my study and to request your permission to conduct the research study in Wise County Public Schools. I am interested in gaining information to identify strategies, communication, and professional development factors impacting co-teaching collaborations in the K-12 inclusive classroom as well as to identify potential strategies to improve the inclusive practices in those classrooms. My dissertation study will focus on factors impacting instructional practices in the collaborative, co-taught K-12 public school classroom as well as identify potential strategies for encouraging and improving inclusive practices based on teacher perceptions. This information will aid teachers, administrators, and key central office staff members in what teachers are doing in the collaborative, co-taught classroom to help the marginalized group of students with disabilities. The information obtained in this study may help to inform future professional development for the teachers and administrators in the school division. It may also provide strategies for teachers who work in the inclusive classroom.

This study will be a basic qualitative study that will include one 30–45-minute focus group interview with participants, conducted by me. I would like to interview 3-8 collaborative, co-teachers at the primary, middle, and high school levels. The 4-6 focus groups would be divided into general education groups and special education groups for each level. At no time

will their involvement disrupt their daily teaching responsibilities. The research study will conform to the requirements set forth by the Virginia Tech IRB. A written report of the study will be provided to you upon completion of the study.

Thank you for your consideration. I look forward to receiving your permission to conduct the study. Please, feel free to contact me if you have any questions, and I will set up a time to personally meet with you.

Sincerely,

Jennifer L. Fleming  
EdD Candidate, VT School of Education



**Appendix F: Email to Principals, Requesting Permission to Conduct Study**

**Email Subject Line:** Recruitment for Participation in Exploring Inclusive Practices in the Co-Taught, Collaborative K-12 Classroom

Dear \_\_\_\_\_,

I am a doctoral candidate in the Educational Leadership and Policy Studies program at Virginia Tech, working under the direction of Dr. Carol A. Mullen. The title of my research is Examining Co-Teaching Collaboration in the K-12 Inclusive Classroom (IRB# 22-135). The topic of my dissertation study focuses on factors impacting inclusive practices in the collaborative, co-taught K-12 public school classroom as well as identifying potential strategies for encouraging and improving inclusive practices based on teacher perceptions. I also hope to gain teacher input on what practices and procedures school districts can implement to address the needs of SWDs. Criteria for participating in this study include (1) general education or special education teachers and (2) must have 1 or more years of experience in an inclusive, collaborative, co-taught K-12 classroom.

I have attached the research approval letter from Wise County Public Schools. I have also attached the teacher recruitment letter for your review. Will you send me a list of teachers who meet the criteria listed above? Thank you in advance for your time and consideration.

Please, email me if you have any questions.

Yours sincerely,

Jennifer L. Fleming  
EdD Candidate, VT School of Education

## Appendix G: Email to Focus Group/One-on-One Participants for Interview Transcription

### Consent (IRB # 22-135)

**Email Subject Line:** Focus Group/One-on-One Interview Transcription Consent

**Title of Research:** Examining Co-Teaching Collaboration in the K-12 Inclusive Classroom

Date: \_\_\_\_\_

Dear \_\_\_\_\_,

Attached you will find a copy of the transcription of our focus group or one-on-one interview conducted on \_\_\_\_\_. Please, read the transcript and choose one of the options below.

After you have responded below by selecting option 1, option 2, or option 3, please, return your response via email. If I, Jennifer L. Fleming, do not receive a reply within 10 days of the date printed above, the information will be included in the study. Thank you for your participation and assistance.

Thank you,

Jennifer L. Fleming

**Option 1:**

I have read the transcription of our focus group interview and agree that it can be used in its current state.

**Option 2:**

I have read the transcription of our focus group interview and would like the following additions or corrections to be made before moving forward.

**Option 3:**

I have read the transcription of our focus group interview and would like to withdraw from the study. With this option, I acknowledge the data from my responses in the focus group interview will be destroyed.

**Corrections or additions:** \_\_\_\_\_  
\_\_\_\_\_

### Appendix H: Coding of Interview Data for Participant #1ESE (Sample)

Question	Responses	Codes per question	Codes
Q1: How would you describe your collaborative, co-teaching arrangement, and how does it function or operate?	I co-teach a fifth-grade reading class, and I have multiple disabilities in the classroom from autism to ED, LD, and ID. All of the variety at the same time. My co-teacher and I plan together. We've worked together for 7 years. We are at the point in our co-teaching that we don't have to plan a whole lot. We know what each other's strengths are, and how we assist each other. She presents the information in the lesson, and I add them to the lesson. My job is when a student, regardless of whether they're a special needs student or just a general education student; are they are having a difficult time, then they come to see me. I differentiate all the instruction and their work.	BGI PREP STR RES GE RES SPED	BGI (Background Information) EFF—CCC (Effective Collaborative, Co-taught Classroom Views) EX (Examples) EPT (Expectations) LDRS (Leadership Needs) NEG (Negative/Ineffective Practices) PD (Professional Development) PREP (Preparation) RES—GE (Responsibilities General Education)
Q2: Would you describe the nature of your collaborative, co-teaching experience as generally positive (effective) or problematic (ineffective), or mixed? Please, elaborate.	Positive and effective. I've done collaborative probably 20 years or more, I guess. I've taught 26. This is my 26 <sup>th</sup> year, and I've had some wonderful co-teachers. The one teacher that I work with now; we've been together for 7 years, and I think a lot of it is based on our attitudes going into it, and just knowing each other strengths and weaknesses, and knowing we can read each other and can play off of each other, and that has helped. I've been in a co-teaching experience that has not been positive and/or effective, and it's basically because of the attitude going into it and the expectation of the other teacher.	BGI EPT NEG	Education) RES—SPED (Responsibilities Special Education) RES—AD (Responsibilities of Administrators) STR (Strategies) STR—CM (Strategies on Classroom Management) STR—IT (Strategies in Instructional Techniques) TIP (Future Collaborative, Co-Teacher Tips)
Q3: What type of instructional techniques, classroom management	We use a flip chart for discipline, and we respect each other that you know if it's not left to just one of us to handle the discipline. If one of us happened to see a discipline problem, we respect the other's right to address it. The classroom knows from day one that we are equal partners in that classroom, and regardless of which one of us is saying [...] that they [the students] are to respect the discipline thought from both of us. They [the students] know	STR— CM EPT RES SPED EX	

<p>strategies, and/or curriculum adaptations are in your collaborative, co-teaching?</p>	<p>not to play us. [...] So, we have that respect. I'm the one that differentiates instruction a lot of times. I will add accommodations or any kind of modification to testing. [...] with the IXL computer program she expects our students to get 85% [...] I may reduce that 85% to 75%. She [co-teacher] respects whatever changes that I make to assignments. I may add a vocabulary list to a test that maybe is not there, to begin with. I may change a test format from filling the blank to multiple choice. That's my role in the classroom is to make any kind of accommodations or modifications to differentiate any kind of instruction that's going on.</p>		
<p>Q4: What are your responsibilities in the collaborative, co-taught classroom?</p>	<p>I covered some of my responsibilities in the previous questions. Additionally, if we have students with autism, I usually will take them out at some point throughout the week and do social stories lessons. I take that responsibility, and I will add any other instruction that they may not be able to get in the classroom.</p>	<p>RES SPED EX</p>	
<p>Q5: What are the determining factors of effective collaborative, co-teaching? How would you describe an effective collaborative, co-teaching classroom?</p>	<p>Number one, it's the attitude that you go into it. If you know some teachers are just against it, to begin with. They feel like that's their classroom it's their way, and I think it's the attitude that you go into it that will make it effective. An effective collaborative, co-taught classroom can be described as respectful of each other, first and foremost, in what you can bring to the classroom. I think that it takes 2 teachers that understand their role in each other. I think it takes a friendship, and a bond between 2 teachers that they can appreciate and get to know that other individual and not feel threatened because it's especially a teacher going into another teacher's classroom and sometimes teachers can be territorial. I think it is effective. They have to give some.</p>	<p>EPT EFF CCC NEG</p>	
<p>Q6: Has the collaborative, co-teaching experience contributed to your</p>	<p>Yes, because you're learning from someone else daily.</p>	<p>PD</p>	

<p>professional knowledge and skill?</p>			
<p>Q7: What type of support is provided by the school to facilitate your collaborative, co-teaching assignment?</p>	<p>Throughout the years we've been encouraged to go to different workshops and in-services. I have had professional development opportunities along the way.</p>	<p>PD</p>	
<p>Q8: In your opinion, how might school division/administrators improve the collaborative, co-teaching experience in your building?</p>	<p>I think administrators must be able to— [...] goes at teachers' assignments just like a coach would at assigning different people into different positions because of their strengths and weaknesses. When you [leaders] do an assignment with you know knowing that you're putting a collaborative team together, they have to look and see the attitudes that the teachers have how about collaborative and if you have a teacher that is just dead set and doesn't want to have anything to do with it. It's not going to be effective. So, I think the understanding and knowing their teachers and their desires and their wishes and what kind of classroom they want to have. I think that's very important because if a teacher does not go into it without wanting it; it makes it very difficult for the other teacher and the students.</p>	<p>LDRS NEG</p>	
<p>Q9: In your opinion, how might stakeholders (like teachers/staff and parents) contribute to making the collaborative, co-teaching</p>	<p>Learning the various ways to do co-teaching, having an understanding of how a student can benefit. It's very beneficial, not only for the special needs student but for all of the students. Understanding the benefits can be very helpful. I've seen students that are rough general education students that are the rough type of kid that becomes a whole different creature when they have a student have a peer that they can learn from not academically, but once they[students] learn that compassion that there are different types of people out there. Just today I had a rough kid that causes trouble all the time, and when we put one of my special needs students at the desk with him, he becomes the most helpful child big-hearted and will go out of his way to</p>	<p>PD EX</p>	

<p>experiences in your building as positive as possible?</p>	<p>make sure that other student, that special needs student, has what she needs. And it. it just changes it. You just see a change for the better.</p>		
<p>Q10: What tips and lessons have been learned that would provide to teachers potentially interested in collaborative , co-teaching?</p>	<p>I think, getting to know that the special needs teacher or the that's coming into your classroom, or you know, getting to know the general education teacher that you're going into. I think you have to get a relationship with that other person, and to know the experiences that they've had and to know their background. [...] that's the way it is with students, as well. Once you get to know them personally and get that respect for a student, and that student sees that you are, you know. Number one--my number one goal is to respect you. because then they say, yeah, I just want the best for you, and That's the same thing with collaborative teachers. Once you get to know that teacher on a personal level, they both become stakeholders. They know that I'm there for the right reasons; I'm not here just to sit in the back of your classroom. I'm here because I want this to work for all of us. I'm not here just for "my kids" [special education students]; I'm here for all of these kids. I'm here to help you to ensure that all of these students pass, and all these students gain their knowledge, and I'm here to assist. We can become equals in this, and you're not carrying that burden of 22-23 students that will test on your shoulders. It's not just you. I'm here to help in any way to make the job easier for you, and once you can portray that to another teacher. I think that it helps for them to buy in, and that makes it effective and that's the number one tip. [...] --is getting to know your other teacher. Make a friend because once you become a friend. You only want the best for that person.</p>	<p>TIP</p>	

### Appendix J: Implications and Findings on Collaborative, Co-Teaching Experiences

Finding 1	Supporting Data and Literature for Finding 1	Implication for Finding 1
<p>Collaborative, co-teachers need to build relationships through trust, mutual respect, time, and support.</p>	<p>Supporting Data from Chapter 4:</p> <ul style="list-style-type: none"> <li>- Interview Data from Q1, Q2, and Q 5</li> <li>- 8/9 of participants agree (88.8%)</li> </ul> <p>Supporting Literature from Chapter 2:</p> <ul style="list-style-type: none"> <li>- Klimaitis (2020),</li> <li>- Hentz (2018),</li> <li>- Dudley-Marling &amp; Burns (2014),</li> <li>- Anastasiou &amp; Kauffman (2011),</li> <li>- Devore et al. (2011),</li> <li>- Murray (2009)</li> <li>- Jones et al. (2008)</li> </ul>	<p>Collaborative, co-teachers need time to develop their relationship. Partners need adequate scheduling and support from the administration that includes guidance and clear expectations.</p>
Finding 2	Supporting Data and Literature for Finding 2	Implication for Finding 2
<p>Collaborative, co-teachers need common planning time, clear expectations, and one co-teaching partner instead of multiple partners to build viable relationships.</p>	<p>Supporting Data from Chapter 4:</p> <ul style="list-style-type: none"> <li>- Interview Data from Q1, Q4, Q 8, and Q 10</li> <li>- 8/9 of participants agree (88.8%)</li> </ul> <p>Literature from Chapter 2:</p> <ul style="list-style-type: none"> <li>- Klimaitis &amp; Mullen (2021),</li> <li>- Hentz (2018),</li> <li>- Dudley-Marling &amp; Burns (2014),</li> <li>- Scanlon &amp; Baker (2012)</li> <li>- Dieker &amp; Murawski (2003)</li> <li>- Austin (2001)</li> <li>- Cook &amp; Friend (1995)</li> </ul>	<p>Collaborative, co-teachers need to have strong communication skills, set clear expectations, and perfect effective practices with one co-teacher instead of multiple partners.</p>
Finding 3	Supporting Data and Literature for Finding 3	Implication for Finding 3
<p>Collaborative, co-teachers need to evaluate each other's strengths and weaknesses and plan lessons accordingly.</p>	<p>Supporting Data from Chapter 4:</p> <ul style="list-style-type: none"> <li>- Interview Data from Q2, Q6, and Q 10</li> <li>- 5/9 of participants agree (55.5%)</li> </ul> <p>Supporting Literature from Chapter 2:</p> <ul style="list-style-type: none"> <li>- Beninghof (2020),</li> <li>- McLesky (2017),</li> <li>- Austin (2001)</li> </ul>	<p>Collaborative, co-teachers need to begin by discussing their strengths and weaknesses to determine the best practices to meet all students' needs.</p>

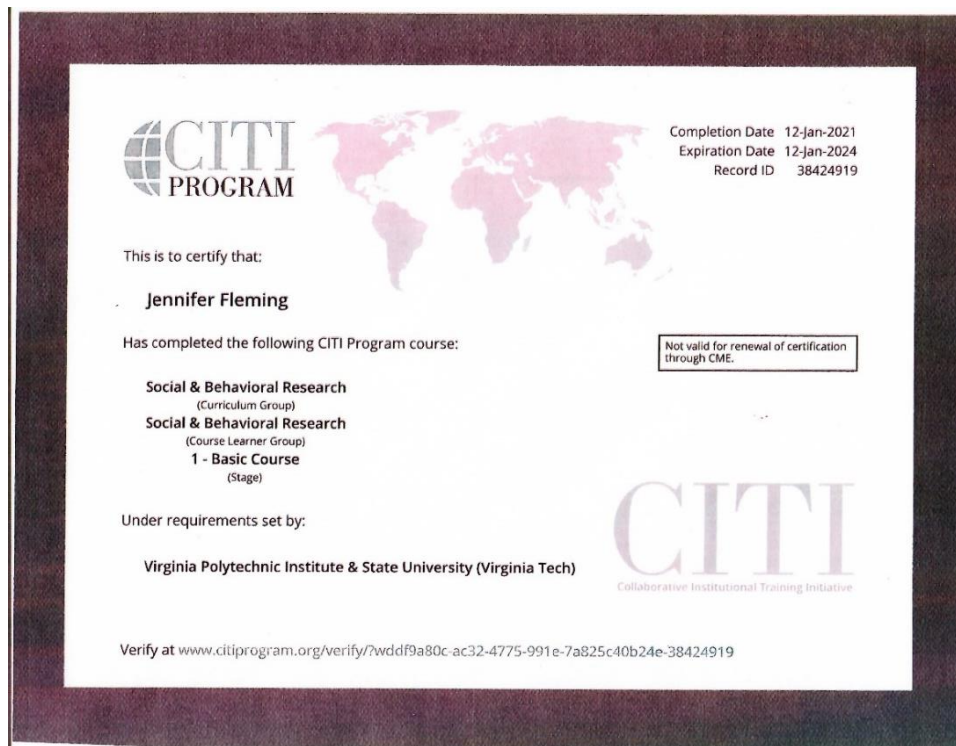
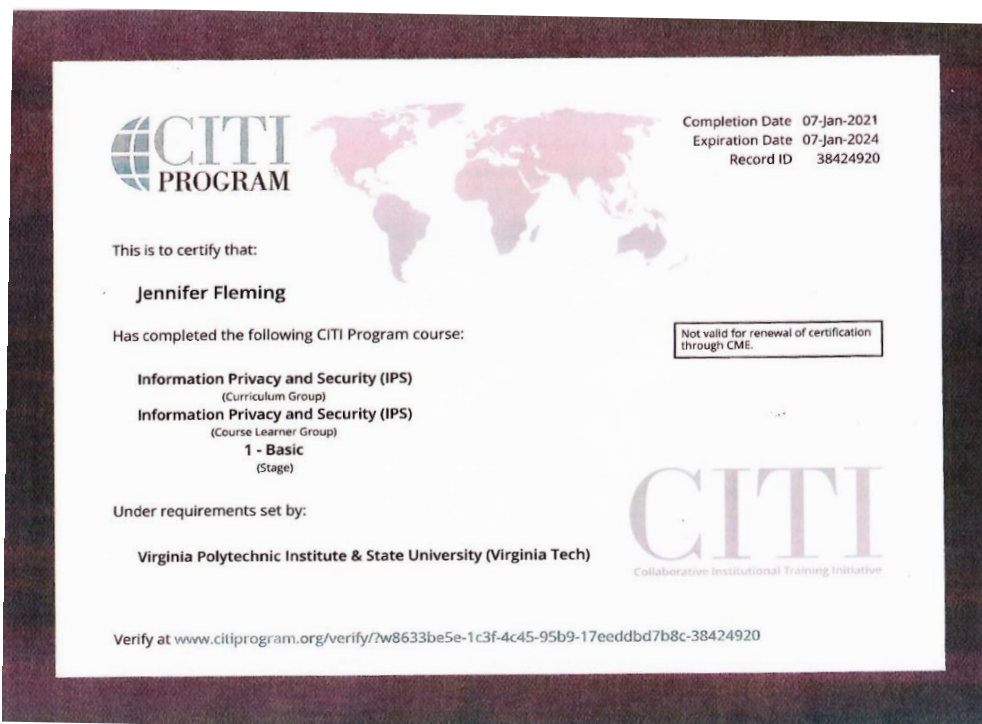
Finding 4	Supporting Data and Literature for Finding 4	Implications for Finding 4
<p>Collaborative, co-teachers use a variety of strategies to have effective classrooms (i.e., differentiated lessons, station teaching, scaffolding, and team approach).</p>	<p>Supporting Data from Chapter 4:</p> <ul style="list-style-type: none"> <li>- Interview Data from Q1, Q3, Q5, and Q 10</li> <li>- 9/9 of participants agree (100%)</li> </ul> <p>Supporting Literature from Chapter 2:</p> <ul style="list-style-type: none"> <li>- Klimaitis (2020),</li> <li>- Hentz (2018),</li> <li>- Murray (2009),</li> <li>- Orr (2009),</li> <li>- Austin (2001)</li> </ul>	<p>Collaborative, co-teacher should receive PD on best practices and effective strategies that have research-based effectiveness in the collaborative, co-taught classroom.</p>
Finding 5	Supporting Data and Literature for Finding 5	Implication for Finding 5
<p>Collaborative, co-teachers need to have equally shared teaching responsibilities.</p>	<p>Supporting Data from Chapter 4:</p> <ul style="list-style-type: none"> <li>- Interview Data from Q3 and Q5</li> <li>- 8/9 of participants agree (88.8%)</li> </ul> <p>Supporting Literature from Chapter 2:</p> <ul style="list-style-type: none"> <li>- Hackett et al. (2021)</li> <li>- Beninghof (2020)</li> <li>- Hentz (2018),</li> <li>- McLeskey (2017)</li> <li>- Friend et al. (2010)</li> <li>- Dieker &amp; Murwaski (2003)</li> <li>- Cook &amp; Friend (1995)</li> </ul>	<p>Collaborative, co-teachers need to have strong communication skills, set clear expectations, and share teaching responsibilities equally.</p>
Finding 6	Supporting Data and Literature for Finding 6	Implications for Finding 6
<p>Both collaborative, co-teacher partners need to know SWDs' IEP needs and accommodations, and both, not just the special educator, need to meet those prescribed needs.</p>	<p>Supporting Data from Chapter 4:</p> <ul style="list-style-type: none"> <li>- Interview Data from Q2, Q3, Q4, and Q 9</li> <li>- 6/9 of participants agree (66.6%)</li> </ul> <p>Supporting Literature from Chapter 2:</p> <ul style="list-style-type: none"> <li>- Hentz (2018),</li> <li>- Dudley-Marling &amp; Burns (2014),</li> <li>- Anastasiou &amp; Kauffman (2011),</li> <li>- Devore et al. (2011),</li> </ul>	<p>Collaborative, co-teachers need to review and discuss all SWD's IEPs. Both partners are responsible for known students' needs and are responsible for providing those services and accommodation</p>



Finding 7	Supporting Data and Literature for Finding 7	Implications for Finding 7
<p>Administrators need to assist with common planning times and PD for both general and special educators and conduct ongoing monitoring of those partnerships</p>	<p>Supporting Data from Chapter 4:</p> <ul style="list-style-type: none"> <li>- Interview Data from Q7, Q8, and Q 10</li> <li>- 5/9 of participants agree (55.5%)</li> </ul> <p>Supporting Literature from Chapter 2:</p> <ul style="list-style-type: none"> <li>- Bateman &amp; Yell (2019),</li> <li>- Hentz (2018),</li> <li>- Dudley-Marling &amp; Burns (2014),</li> <li>- Anastasiou &amp; Kauffman (2011),</li> <li>- Austin (2001) 7</li> </ul>	<ul style="list-style-type: none"> <li>- Administrators should facilitate collaborative, co-teaching partnerships closely and support those relationships, especially during the onset of the partnership.</li> <li>-</li> </ul>
Finding 8	Supporting Data and Literature for Finding 8	Implication for Finding 8
<p>Collaborative, co-teaching experience contributed to participants' professional knowledge.</p>	<p>Supporting Data from Chapter 4:</p> <ul style="list-style-type: none"> <li>- Interview Data from Q6</li> <li>- 9/9 of participants agree (100%)</li> </ul> <p>Supporting Literature from Chapter 2:</p> <ul style="list-style-type: none"> <li>- Austin (2001)</li> </ul>	<p>Administrators should facilitate collaborative, co-teaching partnerships closely and support those relationships, especially during the onset of the partnership.</p>

Suggestions for Future Research
<ul style="list-style-type: none"> <li>• Conduct a study to evaluate needed PDs.</li> <li>• Increase the sample size.</li> <li>• Consider a study that includes other school divisions.</li> </ul>

## Appendix K: CITI Program Certificates



## Appendix L: IRB #22-135 Approval Letter



Division of Scholarly Integrity and  
Research Compliance  
Institutional Review Board  
North End Center, Suite 4120 (MC 0497)  
300 Turner Street NW  
Blacksburg, Virginia 24061

540.231.3732

540.231.3732  
<https://www.research.vt.edu/irb/hrpp>

### MEMORANDUM

**DATE:** March 30, 2022  
**TO:** Carol Ann Mullen PhD, Jennifer Lynn Fleming  
**FROM:** Virginia Tech Institutional Review Board (FWA00000572)  
**PROTOCOL TITLE:** Examining Co-Teaching Collaboration in the K-12 Inclusive Classroom  
**IRB NUMBER:** 22-135

Effective March 14, 2022, the Virginia Tech Human Research Protection Program (HRPP) determined that this protocol meets the criteria for exemption from IRB review under 45 CFR 46.104(d) category (ies) 2(ii).

Ongoing IRB review and approval by this organization is not required. This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made and there are questions about whether these activities impact the exempt determination, please submit an amendment to the HRPP for a determination.

This exempt determination does not apply to any collaborating institution(s). The Virginia Tech HRPP and IRB cannot provide an exemption that overrides the jurisdiction of a local IRB or other institutional mechanism for determining exemptions.

All investigators (listed above) are required to comply with the researcher requirements outlined at:

<https://secure.research.vt.edu/external/irb/responsibilities.htm>

(Please review responsibilities before beginning your research.)

### PROTOCOL INFORMATION:

Determined As: **Exempt, under 45 CFR 46.104(d) category(ies) 2(ii)**  
 Protocol Determination Date: **March 14, 2022**

### ASSOCIATED FUNDING:

The table on the following page indicates whether grant proposals are related to this protocol, and which of the listed proposals, if any, have been compared to this protocol, if required.

*Invent the Future*

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY  
*An equal opportunity, affirmative action institution*