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Coteaching in Secondary Schools

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Abstract

The use of coteaching as a means of supporting students with disabilities in the general education classroom is becoming more common. The literature base on the effectiveness of coteaching in elementary grade levels is well established; however, coteaching in secondary school is a less documented topic. Therefore, this study examines coteaching in secondary schools. Coteaching, as defined in this study, is one general and one special education teacher sharing instructional responsibilities for at least one group of students in one classroom for at least one instructional period. The research questions guiding the study focused on the models of coteaching used at the secondary level, coteachers' understanding of coteaching, reported challenges in sustaining coteaching, and the matters that influence coteaching practices.

For this study, qualitative research methods were used to collect data on coteaching practices in two suburban school districts. There were 13 participants in this study comprising seven coteaching pairs; one special educator was a member in two participant pairs. The grade levels represented by the participants were seventh, eighth, ninth, and tenth; the content areas represented were English, French, mathematics, science, and social studies. Data was gathered during two school years (May 2011 to March 2012) through two in-depth interviews and one observation of the participant pairs coteaching. Each coteacher participated in one individual semi-structured interview. Six of the seven participant pairs also participated in one semi-structured interview with their coteaching partner; one participant pair was not able to complete the joint interview because of scheduling difficulties. Each coteaching pair was observed for one instructional period. The interviews and observations yielded data on the coteaching practices of the participants.

Significant findings of the study include a deeper understanding of the complexities of coteaching at the secondary level. The six models of coteaching (one teach – one assist, station teaching, parallel teaching, alternative teaching, teaming, and one teach – one observe), are a useful framework for coteachers. The use of one particular coteaching model over another one seems to be influenced by the open communication and the level of trust between the partners. Likewise, open communication may lead to a richer understanding of coteaching for each partner and development of shared pedagogical content knowledge (PCK). Shared PCK, a new conceptualization of teacher knowledge based on the collaborative work of coteachers, is an amalgam of knowledge of content, knowledge of pedagogy, and knowledge of student learning characteristics. Findings of this study indicate that shared PCK led the participant pairs to engage in more synergistic coteaching practices. In addition to the development of shared PCK, personal principles of teaching, contextual matters, and the role each teacher negotiates while coteaching also influenced coteaching practices. The participants reported that challenges to their coteaching practices included inadequate time to collaborate, connect and co-plan; the demands on the special educators' time; and the class roster composition.

The findings of this study should be considered in light of the limitations of the study. Limitations include the limited amount of interview and observational data on coteaching practices and the lack of data on student achievement in cotaught classes. Implications are offered for further research as well as considerations for teacher education and coteaching practices in secondary schools.

COTEACHING IN SECONDARY SCHOOLS

by

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Dissertation

Submitted in partial fulfillment of the requirements for the degree of

Doctor of Philosophy in Teaching and Curriculum

Syracuse University

December 2015

Acknowledgements

I gratefully acknowledge the support many wonderful people throughout my long journey in completing this dissertation. I could not have done this without the unwavering support of my mentors, colleagues, friends, and family.

To my dissertation committee, Drs. Gerald Mager, Beth Ferri, and Joseph Shedd, I am grateful for their thoughtful feedback and continuous support. Each has contributed to my work in significant ways. Beyond the work on this dissertation, I also appreciate their mentoring in becoming a member of the teacher education community. I have learned so much from each of them. In particular, I extend my appreciation to Dr. Mager for his willingness to meet with me on a regular basis to keep me moving forward on this project, to push my thinking in new ways, and to reflect on the profession.

To my colleagues and friends, I appreciate their belief in my capabilities to complete this work. In particular, I wish to acknowledge Drs. Joanne O'Toole and Vicki McQuitty – colleagues, friends, mentors, and all around cheerleaders.

To the participants in this study, I extend my appreciation for their willingness to open up their classrooms and to discuss their coteaching practices. Without their participation, I would not have learned so much.

To my students, former and future, I acknowledge the motivation I felt to be a better educator because good teachers do make a difference. I hope my work contributes to that.

To my husband, Chuck, and my children, Maggie and Charlie, I am forever grateful for their encouragement and understanding. I am not sure I can ever fully explain the inspiration I

drew from each of them because of their work ethic, perseverance, and commitment to their own goals.

To my siblings, especially my sisters, I appreciate their interest, encouragement, and excitement throughout this process. Finally, I wish to acknowledge my mother and father, now deceased. I regret that they did not see the end of this journey but I have always felt the influence of their belief that education empowers.

If nothing else, the completion of this dissertation and my reflection on the journey reaffirms my belief that I am a better educator, researcher, and person because of the people around me!

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Chapter 1 – Background of the Study

The need for quality teachers has never been greater. Increasingly, teachers are asked to assume responsibility in providing equitable opportunities for a wide range of learners and share expertise in curriculum and instructional practices so all students can reach recommended levels of achievement. Students with special educational needs are also spending more time in the general education classroom. There is a greater need for special and general educators to work together more deliberately and effectively to support all learners (Van Garderen, Stormont, & Goel, 2012; Winn & Blanton, 2005).

The focus of this dissertation is coteaching in secondary schools. My interest in this topic is rooted in my professional experience as a special educator in early childhood, elementary, and secondary education and as a teacher educator. I begin this chapter with a brief overview of the role of a special educator in K-12 schools, followed by a discussion of collaboration among educators, the promise of coteaching to meet the needs of diverse learners, and finally, a statement about the purpose of this study.

The Changing Classroom

Recent reauthorization of federal legislation such as the Individuals with Disabilities Education Act (IDEA) in 2004 and the No Child Left Behind (NCLB; formerly known as the Elementary and Secondary Education Act (ESEA)) in 2013, mandated that all students have access to general education curricula and outlines possible locations for the delivery of special educational services. The continuum of locations, listed from least to most restrictive, is:

- general education classroom with few or no supportive services,

- general education classroom with collaborative teacher assistance,

- general education classroom with itinerant specialist assistance,

- general education classroom with resource room assistance,

- special education classroom with part time general education classroom,

- full-time special education classroom,

- special day school,

- residential school,

- homebound instruction, and

- hospital or institutional setting. (Salend, 2011)

Furthermore, state and local testing requirements monitor the progress of all students and Individualized Education Programs (IEP) must include justification for any service delivered outside of the general education classroom. The philosophical foundation of these mandates is that all children have the constitutional right to a free and appropriate education in a setting that is least restrictive as possible (Smith, 2010; Villa & Thousand, 2005). In addition, researchers have shown that the delivery of special education services in segregated classrooms is less effective in terms of academic and social skills attainment (Dupuis, Holmes, Platt, Lewis, & Shaha, 2006; Rea, McLaughlin, & Walther-Thomas, 2002; Villa & Thousand).

Although current educational policies do not specify the extent that students must be included in the general education classroom, federal agencies compile data about the degree to which students receive special educational support in segregated and inclusive settings. Students who spend at least 80% of the school day in a general education class are "...the closest measure of full inclusion..." (Smith, 2010, p. 25). Using this metric and data reported by the US Department of Education, the percentage of students aged 6 to 21 with special educational needs who are fully included (i.e., whose primary placement is in a general education program for 80% or more of the school day) has increased from 32% in 1989 to 61% in 2011 (US Department of

Education, 2008a; TA & D, 2013). The increasing numbers of high school students with special educational needs served in general education classes is equally dramatic. In 1989, 20% of these students aged 12-17 spent at least 80% of their day in the general education classroom; this number rose to 58% by 2011 (US Department of Education, 2008b; TA & D, 2013).

This dramatic increase has benefits for students and teachers; however, the numbers can be misleading. Smith (2010) reports that for students identified with autism, as well as those identified with intellectual, emotional, and multiple disabilities, full inclusion is much less common and, in fact, the rate of inclusion for those with intellectual disabilities is decreasing. Furthermore, Dymond, Renzaglia, Gilson, and Slagor (2007) point out that access to the general education classroom for groups of special needs learners with severe disabilities is even less common at the secondary level. This claim is substantiated by comparing the percentages of fully included students, aged 12-17, who have been identified as having a learning disability with those labeled as having an intellectual disability, over the last nine years. The percentage of students with a learning disability, aged 12-17, fully included for the 2004-2005 school year was nearly 50% (US Department of Education, 2010). This number rose to 66% for the 2010-2011 school year (TA & D, 2013), indicating a 16% increase. Conversely, 12% of the students labeled with intellectual disabilities were fully included in 2004-2005 (US Department of Education, 2010). By the 2010-2011 school year, this number rose to nearly 17%, an increase of only 5% (TA & D, 2013), indicating that for some groups of special needs learners at the secondary level, inclusion is less common and increasing at a slower rate compared to other groups of learners.

The overall increase in numbers of students identified as eligible for special educational services in the general education classroom has drawn criticism, as well. For example, Hehir (2007) points out that instructional time in the classroom is often wasted on fixing the child's

disability rather than focusing on appropriate strategies for the student to have meaningful access to the content. As a corollary to this criticism, special education teachers report that they frequently do not have enough time or the resources to support effectively all students in the general education classroom. Moreover, general educators rarely differentiate instructional strategies or provide appropriate accommodations to meet the needs of the learners (Tankersley, Niesz, Cook, & Woods, 2007). Limited resources and too few certified special education teachers exacerbate the problem because there is often a disproportionate number of students with special needs clustered in certain general education classes, particularly those that are low tracked classes (Sapon-Shevin, 2007; Walsh & Jones, 2004). All of these factors contribute to feelings of dissatisfaction and frustration over poorly implemented inclusive practices. Administrative decisions and institutional barriers, such as lack of planning time, insufficient professional development on best practices, inadequate financial resources to purchase multileveled materials, and a traditional approach to schooling, contribute to these challenges (Tankersley et al., 2007). Even with these structural inadequacies, the success of inclusive classrooms ultimately rests with the teachers in the school (Smith, 2010). Nonetheless, teachers confront how to best support learners in their classroom, in spite of the structural inadequacies.

Teachers are pressured to see that all students make academic progress, which increasingly is measured by high stakes assessments. Research indicates that teacher quality makes a difference in student achievement (Darling-Hammond, 2006; Goe & Stickler, 2008; Salinas, Kritsonis, & Herrington, 2006). However, the roles and responsibilities of special education teachers become progressively more complex as they are asked to teach in multiple content areas, report student progress on benchmark assessments in content areas, adapt and modify general education curricula, and take on non-teaching roles in the school. As a result of

these increased pressures, the ability of teachers to positively influence student achievement and their willingness to stay in the profession can be jeopardized (Washburn-Moses, 2005).

In a recent study, Vannest, Hagan-Burke, Parker and Soares (2011) examined special educators' use of time in four different programs ranging from self-contained to general education classrooms. Using a revised Teacher Time Use instrument originally developed by Vannest, Adiguzel and Hagan-Burke in 2005, 31 special education teachers reflected on their activities at the end of each instructional period. Each participant submitted data for ten school days over the course of one academic year. The researchers corroborated the data using external observers to validate the self-reported activities of the teachers. The identified teachers' activities were one of ten possible tasks: academic instruction, nonacademic instruction, instructional support, preventative behavior management, responsive behavior management, special education assessment, state-mandated assessment, classroom assessment, special education paperwork, and general education paperwork. Results of this study indicate that academic instruction, defined by the researchers as direct instruction of state mandated content area material, and instructional support, defined by the researchers as monitoring student work with minimal or no direct instruction to students, reflected only 37% of class time. As the authors point out, "…nearly two-thirds of class time, the special education teacher is not actively teaching or supporting instruction…" (p. 226), but is occupied with other non-teaching tasks and responsibilities such as paperwork, test administration, and behavior management.

Similarly, general education teachers are also confronted with new challenges in meeting the needs of an increasingly diverse student population as well as interfacing with a variety of school personnel (i.e., special education teachers, paraprofessionals, and speech therapists assigned to their classroom) to facilitate student achievement (Thousand, Villa, & Nevin, 2006).

Volonino and Zigmond (2007) contend that the changing climate in today's schools warrants a closer look at research based strategies to reform current practices in our schools. According to Gerber (1991) and Simmons, Carpenter, Dyal, Austin, and Shumack (2012), collaborative models are an important element in restructuring the service delivery model of a school.

The Promise of Coteaching

As I will discuss in the literature review, coteaching is a collaborative practice often promoted by researchers as a way to meet the needs of diverse learners in inclusive classrooms (Dieker & Murawski, 2003; Fattig & Taylor, 2008; Friend, 2007; Thousand, Villa & Nevin, 2006). Coteaching, typically defined as a special and general educator jointly planning and teaching a heterogeneous group of students in the same classroom (Scruggs, Mastropieri, & McDuffie, 2007), has the potential to meet diverse students' needs in the general education classroom as well as to support teachers in the education profession. It is important to note that use of the term coteaching is inconsistent in the professional literature. In some published work, collaborative practice is seen as synonymous with coteaching (see Thousand et al., 2006). Other work describes collaboration as team or departmentalized instructional grouping (see Bickmore, Bickmore, & Hart, 2005). For this study, coteaching will be understood as a form of direct collaborative teaching in line with the definition offered by Scruggs and his colleagues (2007). In other words, the terms collaboration and coteaching will *not* be used interchangeably in this dissertation.

Likewise, coteaching and inclusion are also not synonyms. Implementing a coteaching model may be an enactment of an inclusive philosophy; however, an inclusive philosophy is a broader concept of welcoming all children into a community of learners, which may or may not include a general and special educator sharing instructional responsibilities, classroom space, and

a group of diverse students. Coteaching is often considered to be part of a more inclusive and a less restrictive environment than other service delivery models that segregate a learner from her/his peers and limit access to the general education curriculum.

However, Wilson, Kim, and Michaels (2013) advise educators to be cautious about assuming that coteaching is necessarily less restrictive. In their study, they reviewed the Individualized Education Plans, report cards, and formal assessment reports of 559 secondary students with disabilities enrolled in a large school district in New York State. Among their reported results, the authors assert that in a cotaught classroom, the potential availability and support of a special educator can be extensive; therefore, a cotaught classroom is more restrictive than other models of supporting students with special educational needs. Wilson, Kim and Michaels also reported that the participants in their study who were in a cotaught classroom received more related services (i.e., speech therapy, counseling, occupational therapy, one-on-one aide, adaptive physical education) as well as more testing accommodations and modifications than their peers in other placement options. This led the authors to propose "that placement in cotaught classes reflects a higher intensity special education environment" (p. 159) and cotaught classrooms are used to meet the needs of students who were once placed in more segregated classrooms. Their assertions seem to interpret the notion of least restrictive environment (LRE) as a continuum of special education services rather than a continuum of access to general education. Although there is a growing trend in the field of special education to consider the continuum previously described in this chapter as a continuum of services, the intent of least restrictive environment is focused on access to the most typical educational opportunities compared to nondisabled peers. Thus, a cotaught classroom allows students with disabilities better access to the general education curriculum regardless of the support provided within that

classroom. I suggest that allowing students with disabilities to receive these services while in the general education classroom is less (rather than more) restrictive than segregated locations because of the opportunity to engage in a learning environment more like their nondisabled peers.

Most relevant to my study, is the nature of how teachers in a cotaught classroom interact and support all learners in the class, which may look very different depending on how the teachers implement a coteaching model. Wilson, Kim, and Michaels' (2013) assertion conflates the notion of least restrictive environment (LRE) and access to special educational services. Nonetheless, educators need to consider carefully a range of options to support learners in elementary and secondary classrooms. This may constitute an important distinction between cotaught classes at the elementary level and those at the secondary level. The availability of a special educator may not be the same depending on the setting; instructional periods in a secondary school typically are discrete time periods, whereas elementary classrooms may have more fluid instructional periods because students often stay in the same classroom for instruction in multiple subjects. Although there is a body of research on coteaching at the elementary level, research focusing on coteaching at the secondary level is limited (Harbort et al., 2007; Magiera & Zigmond, 2005; Wilson, Kim, & Michaels, 2013).

My interest in coteaching as a collaborative practice was heightened due to my participation on a research team interrogating the implementation of a coteaching model in an urban middle school (Crandall, Cullen, Willard, Chandler-Olcott, & Hinchman, 2008). The focus of the project was to support teachers of language arts, social studies, and special education as they integrated the language arts and social studies curricula into a seventh grade humanities program that also addressed the literacy needs of students. The social studies and language arts

teachers combined their class rosters to create two seventh grade humanities classes of 40 students each in one enlarged classroom in an urban middle school. Both of the combined classes received instruction in the newly developed humanities curriculum for a total of 110 minutes each day. The special educator supported eight students with disabilities in each of the combined classes. While some members of the research team observed in the classroom and attended meetings with the teachers throughout the school year, my role in this project was to assist in the coding and analysis of data.

Before the school year had begun, the coteachers agreed upon room arrangements and a rudimentary procedure for how they would structure the instructional period. However, as the year progressed, the teachers faced unanticipated challenges in coteaching this group of students and, by mid-February, moved away from collaborative practices and coteaching altogether. Factors that contributed to this move away from coteaching included instructional decision-making based on students' behavior rather than their learning needs, lack of communication about shared goals for the humanities program, and tensions regarding the roles of each teacher. Of these, the students' behavioral needs were the most influential factor in how the curriculum was presented to the students and how the instructional space was utilized. In analyzing the data, we were able to gain a deeper understanding of the complexities of sharing an instructional space, negotiating the power dynamics inside and outside the classroom, and the negative effects of ambiguity in terms of roles and responsibilities. We concluded that shared goals for instruction and explicit discussion of how coteaching will be enacted by the teaching partners are important areas for successful implementation of coteaching. We also concluded that thick descriptions of how teachers share space when coteaching is an important next step for researchers in this area of inquiry (Crandall et al., 2008). Participation in this research project

intensified my interest in the effective use of coteaching in secondary schools. In particular, the study prompted me to ask how coteachers negotiate sharing space and instructional time and how they move away from a simplistic view of coteaching to a deeper, more complex understanding of coteaching as a mutual commitment to ensuring that all students learn the curriculum.

Personal Experiences of Collaboration in Education

In reflecting on my own experiences as a teacher, I realize that support and collaboration with my colleagues was key to my own success, as well as to my students' success. Similar to Mastropieri's (2001) experiences as a novice special education teacher, supportive colleagues fostered and encouraged my own resilience when confronted with challenges in subject area content, scheduling, student behaviors, and school climate. However, it took several years before I recognized the importance of professional collaboration.

Some faculty members seemed to associate me, as a novice special education teacher, with the actions and achievement of the students identified with special educational needs participating in their classrooms. This was an era in public schools when children with a disability had to earn their way back into a general education class or the mainstream population of the school. Part of my responsibilities was to facilitate that return and to support the student in the general education classroom. This is a challenging task for any teacher, but especially for a beginning teacher. I found myself in the position of collaborating with general education teachers who had more content expertise; however, there was limited time and few opportunities to thoroughly discuss the curriculum with these teachers. Complicating the situation was the fact that I was not in the general education classroom when my students were present because of my other teaching responsibilities. Reports that I received about my students in their classes were second hand and after the fact. This left me feeling ill-prepared to truly support the learning of

my students. I intentionally use "my students" as a phrase to describe these learners because there was general acknowledgement that they were my responsibility—I was accountable for their academic and behavioral successes and failures. When students were unsuccessful or felt overwhelmed, it was my responsibility to retrofit and adjust learning tasks, often outside of the general education classroom, so the students could be successful. Frequently, this required negotiations with the general education teacher before or after school. As I became more adept and comfortable in my capabilities of suggesting modifications and accommodations for the students, I recognized the importance of building collaborative relationships with my colleagues and often thought about how best to facilitate this relationship to meet the needs of students who required adjustments to the general education curriculum to be successful. In retrospect, I wonder about the possibilities of my own entrance into the education field as well as the increased capacity to collaborate with general education teachers if coteaching was then an option at the school or a part of my preparation to become a teacher.

Working collaboratively with colleagues -- initially fellow "support" teachers such as speech and language therapists, school counselors, resource teachers, and then general education teachers -- facilitated my acculturation into the profession, contributed to my professional growth, gave me a sense of being a more effective teacher, and made the school climate more affable. Over the last 25 years, I have had several teaching positions with learners ranging in age from early childhood to adult. Throughout each of these experiences, I began to recognize the importance of professional collaboration as a means of promoting student success and sustaining myself in the profession. Interestingly, as a graduate student, I had the opportunity to share teaching responsibilities with a professor in a teacher preparation program. This experience was a revelation for me because I finally gained first-hand experience at coteaching as a collaborative

practice. Additional experiences of coteaching at the college level gave me insight into the possibilities of this practice in K-12 classrooms. Although my own preparation program and early professional experiences lacked opportunities to learn about and implement coteaching, I have come to realize the potential of this collaborative practice. Believing in the potential benefits of coteaching as a way to meet the needs of students identified as eligible for special educational support in the secondary general education classroom, I am curious about teachers' implementation and experiences with the collaborative practice of coteaching.

Statement of Problem and Purpose of Study

Collaborative work supporting the educational achievement of students is a reasonable expectation as students advance from elementary to secondary school. Therefore, it is important to take a closer look at the current state of coteaching as a collaborative practice in secondary schools. Additionally, coteaching is viewed by many educational reformers (Dupuis et al., 2006; Hang & Rabren, 2009; Rea et al., 2002; Villa, Thousand, & Nevin, 2013) as a means to address the diverse needs of students in secondary general education classrooms. Findings from current research on coteaching, particularly at the secondary level, point to the complexities of this model for supporting students with special educational needs in the general education classroom. Teacher beliefs about meeting the needs of diverse learners are also an influential factor in the success of a coteaching pair (Egodawatte & McDougall, 2011; Pancsofar & Petroff, 2013).

Coteaching is similar to other instructional practices in that it should rely on research-based strategies for success. Coteaching also requires an additional set of skills that are used infrequently by educators who teach alone in the classroom (Mastropieri, 2001; Washburn-Moses, 2005; Winn & Blanton, 2005). Included in this necessary skill set is the commitment to working within an equitable partnership, co-developing and implementing shared lesson plans,

utilizing effective communication patterns, sharing assessment strategies, and jointly problem-solving (Villa et al., 2013). Studying the development and refinement of these skills is important in helping to understand how teachers' expectations and beliefs about teaching in an inclusive classroom influence coteaching relationships and how the partners reconcile differences in instructional styles, strategies, and approaches to teaching the content.

Given the need for more studies on coteaching at the secondary level, the purpose of this study was to examine the practices of special and general educators coteaching in middle and high schools. In particular, this study examined the models of coteaching used by pairs of general and special education coteachers, the teachers' understandings of their coteaching practice, the challenges participant pairs report in instituting or sustaining coteaching, and the influences on coteaching the participants report. As stated previously, coteaching was defined for the purpose of this study as one general education and one special education teacher sharing instructional responsibilities for at least one heterogeneous group of students in one classroom for at least one instructional period. An examination of this approach to teaching augments the current literature base on effective practices to meet the needs of a diverse student body, adds to understandings of practices that may enhance coteaching among secondary teachers, and may identify the skills needed for successful coteaching. On a broader scale, this study informs current scholarship on the relationship between teacher understandings and coteaching practices. The research questions this study sought to address were:

1. What models of coteaching are employed by pairs of general and special education coteachers at the secondary level?

2. How do participant pairs understand coteaching?

3. What are some of the challenges participant pairs report in instituting or sustaining coteaching?

4. What do secondary teachers report as influencing their coteaching practice?

In the remaining chapters, I review the current literature on coteaching in secondary schools, discuss the design, and the findings of the study. I conclude the dissertation by discussing the next steps in this area of research. More specifically, in Chapter 2, I review the current literature on coteaching in secondary schools. In Chapter 3, I describe the qualitative research methods and procedures I used to conduct this study. In chapters 4, 5 and 6, I discuss the findings of the study. I conclude the dissertation in Chapter 7, where I summarize the results, discuss the limitations of the study, and suggest areas of further inquiry related to the topic of coteaching in secondary schools.

Chapter 2 -- Literature Review

In this chapter, I review the current literature on coteaching. Coteaching is rooted in collaborative practices, which is where I begin my review. I follow this section with a thorough review of coteaching. Although the focus of this dissertation is on coteaching at the secondary level, I draw on literature across grade levels in order to provide a broad representation of the current knowledge base and because there is much less focus on secondary schools in the literature to date. I conclude the chapter with a discussion of the gaps in the literature regarding coteaching in secondary schools.

Collaborative Practices in Schools

Collaboration is a growing trend in schools as they begin to reflect a more global, diverse society. Defining collaboration is a challenge because of the variety of definitions offered in the literature on this topic (Hernandez, 2013). Although authors offer nuanced differences in their definitions, generally all definitions of collaboration imply that it is a style of direct interaction between at least two equal partners engaged in shared decision making for a specific purpose or outcome. It typically takes the form of instructional teams in schools. An educational team can be defined as "… a set of interdependent individuals with unique skills and perspectives who interact directly to achieve their mutual goal of providing students with effective educational programs and services" (Friend & Cook, 2010, p. 58). When considering collaboration in schools, it is important to distinguish between collaborative beliefs, and collaborative instructional practices and models. Friend and Cook (2000) clarify the distinction in the following way: a belief or philosophical stance towards collaboration leads to concepts such as least restrictive environment, mainstreaming, and inclusion. In the United States and elsewhere in the world, educational policies promote this philosophy through legislation such as No Child

Left Behind (NCLB) and the Individuals with Disabilities Education Act (IDEA). Instructional practices based on collaboration include cooperative learning groups, adaptive instruction, and peer tutoring. These practices promote acceptance of diversity, shared responsibility, and interaction skills. Collaborative models, the focus of this discussion, address the delivery of services to students. It is a way to meet the needs of increasingly diverse students, pool educational resources, and lessen the professional isolation of teachers.

Collaborative models can be divided into two broad categories: indirect and direct or full collaboration (DiPardo, 1999, Friend & Cook, 2010; Hewitt, 1997; Hourcade & Bauwens, 2003). Indirect collaboration involves professionals working together outside of the classroom to develop educational plans and strategies. This type of collaboration is predicated on a presumption of team members having specialized expertise and the classroom teacher needing assistance. One teacher, usually the general educator, provides direct educational services to students in the classroom. Instruction and accountability remain the responsibility of that single teacher. Examples of indirect collaboration include consultation, peer coaching, mentoring, and teacher assistance teams (Hewitt, 1997; Hourcade & Bauwens, 2003). A Child Study Team (CST), Committee for Special Education (CSE), and Student Behavior Intervention Team (SBIT) are also examples of indirect collaborative teams. Teams can consist of several members, such as in a CST or CSE. Indirect collaborative teams can also be comprised of only two members, such as a peer coaching team. The primary purpose of these types of teams is to utilize members' expertise to advise direct service providers with appropriate interventions to meet the needs of the teacher and students. The collaborative efforts tend to be episodic in nature in order to resolve an issue. In essence, indirect collaboration does not alter the traditional structure of schools in which one teacher instructs one classroom of students.

Direct or full collaboration is distinguishable from indirect collaboration by a number of factors. Foremost, direct collaboration strives to meet the needs of all learners by developing an ongoing, sustained relationship among the team members (Nevin, Thousand, Paolucci-Whitcomb, & Villa, 1990). It theoretically implies an equal partnership between professionals wherein each member "…has expertise, can contribute, and can learn from each other" (Paulsen, 2008, p. 313). Problem solving is the responsibility of all members and each member has a direct, interactive role with students. There can be a variety of team configurations, including teachers sharing students but not instructional space or instructional content (e.g., a grade level team) and teachers sharing students, content, and instructional space (e.g., coteachers).

In general, categorization of direct collaboration can also be into three categories of collaborative team models. These three models, called multidisciplinary, interdisciplinary, and transdisciplinary, fall along a continuum of least to greatest collaboration, respectively. As described by Friend and Cook (2010) and Hernandez (2013), each model has differing assumptions about the role of the professional within the collaborative model. Multidisciplinary collaboration, the least collaborative of the three, is characterized by team members providing direct services to a student independent of other team members, although information may be shared among the members. Interdisciplinary teaming is characterized by enhanced coordination of the services provided to a student wherein each team member implements a component of an overall intervention plan for a student. The most collaborative approach is a transdisciplinary team. In this model, all members share responsibility for assessment, implementation, and accountability of an intervention plan. Individual team members may blend their roles by engaging in shared training and staff development in order to meet holistically the needs of students. Although the use of a continuum can be helpful in discussing collaboration in schools,

for the sake of this discussion the binary system of indirect/direct collaboration will be used. This will allow for more clarity in reviewing the professional literature of collaborative practices in schools.

There is a great deal of literature describing the process of collaboration but less research on the outcomes, in particular the effects of collaborative practices on teachers and student learning (Goddard, Goddard, & Tschannen-Moran, 2007). DiPardo (1999) describes the benefits of collaboration as a stimulus for change, a framework for managing ambiguity, and the foundation of an ethic of care by promoting interpersonal connections. Although these would seem to lead to educational reform, an important aspect of meeting the needs of diverse learners, other researchers have looked specifically at how collaborative practices alter the everyday classroom experience for teachers and students.

One study that is relevant to this discussion compared the effects of indirect and direct collaboration on the achievement of eighth grade students. Research by Rea, McLaughlin, and Walther-Thomas (2002) demonstrates that students with disabilities included in general education classrooms using a direct collaboration model, in this case coteaching between a special and general educator, attained higher or at least similar rates of achievement compared to students served in an indirect collaborative model. Furthermore, direct collaboration enabled the teachers to share responsibility for student performance, an important element in many of educational policies as described above. This study, discussed in more detail in subsequent sections of this review, supports the use direct collaboration to meet the needs of students.

Schools that employ a direct collaboration model provide teachers with an organizational structure to promote better communication, which leads to more effective problem solving, supportive interventions for at risk students, and a sense of shared responsibility for the learning

of all students (Rea, McLaughlin, & Walther-Thomas, 2002). Teachers have the opportunity to utilize the expanded knowledge base of team members rather than rely solely on their own memory of effective strategies and instructional practices. As such, collaboration is an important part of teacher learning and ongoing professional development.

Brownell, Adams, Sindelar, Waldron and Van Hover (2006), however, point out a number of variables that can influence a teacher to change her/his practices. The researchers used a case study methodology to determine how collaborative practices influence a teacher's adoption of interventions aimed at improving student learning. The results indicate that a teacher's willingness to adopt interventions falls on a continuum ranging from high to low. Factors that influence individuals on this continuum include pedagogical knowledge, knowledge about student centered behavior management and instruction, and the ability to reflect on student learning. Brownell and colleagues (2006) assert that varied collaborative practices are most effective in meeting individual teacher needs. The researchers contend that with more effective and direct collaboration, there is a higher potential for teacher learning.

Additional researchers also cite teacher learning as a significant benefit to teacher collaboration (Brownell, Yeager, & Rennells, 1997; Goddard, Goddard, & Tschannen-Moran, 2007; Nevins, Thousand, Paolucci-Whitcomb, & Villa, 1990). The literature review by Brownell et al. (1997), for instance, documented other benefits to collaborative teaching: fostering a teacher's affective characteristics, such as sense of school community and belonging; improved leadership; and, heightened self-efficacy. Brownell and colleagues' finding of improved self-efficacy because of collaboration corroborates findings in a study by Schachar and Shmuelevitz (1997), which stated a teacher's self-efficacy "is a judgment of his or her capabilities to bring about desired outcomes of student engagement and learning" (Tschannen-Moran & Woolfolk

Hoy, 2001, p. 783). Higher teacher self-efficacy is a result of teacher learning and an expanded knowledge base to deal with challenging learning and behavioral needs. Teachers know more about teaching through their direct collaboration with colleagues and feel better equipped to support student learning. This leads to the belief that there will be improved learner outcomes.

Although an in-depth discussion of the relationship between teacher self-efficacy and student achievement is important, there is limited research available to validate this connection (Goddard, Goddard, & Tschannen-Moran, 2007). Nonetheless, researchers have documented the student benefits of collaboration without measuring teacher self-efficacy. For example, Brownell, Yeager, and Rennells (1997) reviewed the research on collaborative practices among general and special educators. This search yielded six relevant studies from 1968 through 1997 that documented the benefits for students in more learner-centered classroom, including more opportunities for student choice, better monitoring of progress, fewer student behavioral referrals, and fewer erroneous referrals for special education services.

Thus, direct collaboration among teachers offers benefits for teachers and for students. The challenge for educators, however, is to determine the best way to incorporate a collaborative model in a school. Coteaching has increasingly been used as a delivery model for special education services in elementary and secondary grades (Scruggs, Mastropieri, & McDuffie, 2007). The question remains, however, as to the empirical research supporting this particular collaborative practice. The following analysis highlights relevant research regarding coteaching, with a focus on secondary schools.

Coteaching Practices in Schools

Coteaching has been implemented in schools as a way to deliver instructional services to a variety of learners. When effectively implemented, coteachers combine their professional

strengths to support the learning of all students in the class (Friend & Cook, 2010; Moorehead & Grillo, 2013). Additionally, coteaching serves to renew the teachers' professional commitment (Scruggs, Mastropieri, & McDuffie, 2007). As reported in The National Study on Inclusion (1995), coteaching has become the most popular staffing model for implementing inclusion. Since the time of this report, the use of coteaching has continued to be commonly implemented in school districts throughout the United States with varying success (Mastropieri et al., 2005; McDuffie, Mastropieri, & Scruggs, 2009).

Intuitively, coteaching appears to be a plausible way for educators to meet the needs of diverse learners. Bauwens, Hourcade, and Friend (1989) suggested this approach over 25 years ago. Underlying their ideas was the notion that all students should receive the support they need to succeed regardless of the qualifying parameters for entry into the special education system. They describe a merger of special and general education wherein special and general educators provide direct instruction to a heterogeneous group of students in a general education classroom. The authors use the phrase "cooperative teaching" to describe this merger. Later, Cook and Friend (1995) shortened the term to "coteaching." Early conceptions of cooperative teaching were based on the general educator's need for assistance in meeting the demands of a diverse student body (Hewittt, 1997). However, Hourcade and Bauwens (2003) further described coteaching as a model of direct collaboration, implying that the collaboration is not in reaction to a problem but should be in place before difficulties arise.

Coteaching dyads typically consist of one general and one special education teacher (Scruggs et al., 2007). Over the years, Friend and Cook (2010) have extended Bauwens, Hourcade, and Friend's (1989) cooperative teaching arrangements and outlined six models of coteaching. These six models are described below.

- One teach-one assist – one teacher assumes teaching responsibilities for the whole class while the other teacher circulates among the students to provide individual support as needed;

- Station teaching – learning centers are created and each of the coteachers provides support at the different centers;

- Parallel teaching – both teachers are responsible for teaching similar content to different groupings of students;

- Alternative teaching – one teacher takes a small group of students to another location for a limited amount of time to teach specialized content;

- Teaming – both teachers share responsibility for teaching the lesson together;

- One teach – one observe – one teacher assumes teaching responsibility for the whole class while the other teacher gathers academic, behavioral, or social data on student(s).

Several researchers document that the one teach-one assist model is most prevalent in secondary schools, with the special educator consistently filling in the role of assisting (Fontana, 2005; Keefe & Moore, 2004; Weiss, 1999; Wischnowski, Salmon, & Eaton, 2004). Scruggs et al. (2007), in a metasynthesis of qualitative research on coteaching, found the one teach-one assist model most prevalent across all grade levels. However, use of the one teach-one assist model is not supported by the authors of the studies reviewed by Scruggs and his colleagues who assert that coteaching as a way to improve student achievement for all students is "…being employed far less effectively than is possible" (2007, p. 412). This finding echoes an earlier study by Boudah, Schumacher, and Deschler (1997) who stressed the potential of coteaching in secondary classrooms and the need for more research on the relationship between the actions of coteachers and the performance of their students. Therefore, while these researchers attest to the potential

benefits of coteaching, they also caution that the prevalent use of the one teach-one assist model lessens the impact of coteaching on the achievement of students.

Beyond knowing the most prevalent coteaching model in use, it seems important for coteachers to be aware of the full range of options available and the appropriateness of each within the learning context. A review of the current research does not show any studies in which investigators conduct an intervention study specifically comparing the coteaching models described above. Moorehead and Grillo (2013), however, encourage the use of station teaching in cotaught secondary mathematics and science classes. They contend that this model of coteaching accommodates for the sometimes-disparate content knowledge that coteachers may have by dividing the content and reducing the student-to-teacher ratio. Station teaching would allow each teacher to be an expert in the content taught and the instructional strategy being used at his or her station. The authors suggest that this approach to collaboration is needed to ensure that the stations complement each other while at the same time utilizing two professionals in the classroom simultaneously. The report by Moorehead and Grillo (2013), similar to much of the current literature, is observational of existing practices. The authors do not compare station teaching to another coteaching model but report on their observed success in secondary science and mathematics classes.

The nascent body of research on coteaching in secondary schools includes observational studies, theoretical and position papers, and, although less numerous, intervention studies. In reviewing the current literature on coteaching in secondary schools, three categories of findings emerged: teacher practices and beliefs, implementation, and student outcomes. As discussed in Chapter 1, researchers support the idea that teachers are a powerful influence in education (see Darling-Hammond, 2006; Goe & Stickler, 2008; Salinas, Kritsonis, & Herrington, 2006);

therefore, it makes sense that the beliefs and practices of each individual in a coteaching partnership are important to consider. Also important to school practices and the implementation of any school reform, are the fidelity and organizational characteristics affecting the enactment of any particular model. Student outcomes are at the center of why teachers and researchers interrogate educational institutions and practices. These broad categories, also noted by Friend, Cook, Hurley-Chamberlain, and Shamberger (2010) in their discussion of the complexities of coteaching, serve as a framework for the more detailed review of the coteaching literature that follows.

Teacher practices and beliefs. The positive benefits of being a part of a coteaching team are numerous. Some of the benefits reported by coteachers are professional satisfaction and individual professional development (Sebastian, 2001), increased knowledge and use of adaptations (Fontana, 2005), improved student /teacher ratio allowing more one on one time to teach (Magiera & Zigmond, 2005). Additionally, Friend (2007) and Dieker and Murawski (2003) assert that coteaching provides an opportunity for teachers to creatively consider the needs of all students, not only those with disabilities. In considering the role of teachers in a coteaching situation, it is important to think about the professional identity and development of the teachers involved.

Bickmore, Bickmore, and Hart (2005) reanalyzed data from a larger study evaluating induction programs at two schools in a rural district so they could examine interdisciplinary teaming more closely. The original data set, collected through interviews, surveys, and school district website artifacts, was collected from novice teachers (i.e., a first or second year teacher or a teacher new to the district; n=27) and their mentors (n=16). In this study, the researchers define team teaching as a group of teachers from different content area specialties that share a

common group of students. The teachers in the study did not coteach since they did not share a classroom; I have included this study in this review because the researchers investigated collaborative practices among teachers with different areas of expertise (similar to coteaching in that the general and special educators have different areas of expertise). The researchers reported several benefits for the new teachers, including the development of management strategies and providing a forum to discuss curriculum and instructional practices, because of collaborating with colleagues. The participants in this study also asserted that collaboration, more than professional development, assisted in their transition to a professional role in the school.

The conclusion from Bickmore, Bickmore, and Hart (2005) led me to consider the use of coteaching as a model for induction programs. Induction programs have received increased attention in the professional literature in response to teacher attrition rates of 40-50% (Ingersoll & Smith, 2003) during the first five years of a teacher's career. I reasoned that formal induction programs, most often characterized by assigning mentors or experienced teachers to provide support, guidance, and orientation to the profession for beginning teachers (Ingersoll & Smith, 2004), may be facilitated by the mentor and the novice teacher coteaching together. Pugach and Winn (2011) recently recommended the use of coteaching as a model for induction, particularly of special education teachers. I was unable to find any other professional literature describing implementation of coteaching model for induction of new professionals; however, I did find one study that discussed the influence of years of teaching experience in the coteaching relationship. In discussing the results of their investigation, Harbort and colleagues (2007) note years of teaching experience for the participants in their study. In this study, the researchers completed an observational study of high school coteachers in a science classroom. Team 1 consisted of a general education teacher with 26 years of teaching experience and a special education teacher

with six years of teaching experience. Both teachers also had several years of experience teaching in a cotaught classroom outside of this partnership. Team 2 consisted of a general education teacher with seven years of teaching experience, none of which were in a cotaught classroom, and a special education teacher with four years of teaching experience, three of which were in another cotaught classroom. Analysis of the data indicated that there was no difference in teacher roles between the teams, and years of teaching experience did not seem to influence the predominant use of the one teach-one assist model, described by Scruggs and colleagues (2007).

Weiss and Lloyd (2002) conducted a small observational and interview study with six secondary special educators. The results of this study indicate that the special educators are isolated in their role as assistant to the general education teacher. They frequently engage in supportive roles in the general education classroom whereas the researcher observed them taking leadership roles in their own special education classrooms. It appears, therefore, that the teachers have the skills to teach but are not given the opportunity to provide direct instruction in the general education classrooms. This was also evident in an article written by Mastropieri, Scruggs, Graetz, Norland, Gardizi, and McDuffie (2005) that discusses the findings from case studies of coteachers within upper elementary, middle, and secondary content-area classes. By analyzing the observational data and interview transcripts from ten coteaching dyads, the authors found that the teacher with the stronger overall content knowledge led the lesson while the other interacted with the students in a supportive role. For the most part, the general education teachers led the lessons since they had a deeper understanding of the content. The authors did not note whether the participants discussed the possibility or the opportunity for their coteaching partner to learn the content to a sufficient level to engage the class in a lesson.

Zigmond (2006) reported similar findings in an observational study of eight secondary classrooms, grades 9-12, each with one certified secondary social studies teacher and one certified special educator. The special education teachers in the cotaught classrooms spent most of their time disengaged from the students and only occasionally made contributions to the content instruction. In this study, there are no data indicating that the special educators provided substantive interventions for the struggling learners in the classroom. Although the design of this study was observational and did not probe the feelings of the participants, the teacher actions appear to align with the participants in the Weiss and Lloyd (2002) and the Mastropieri and colleagues (2005) studies, which may lead to feelings of isolation that the participants from previous studies report. Feelings of isolation can affect a teacher's self-efficacy (Brownell et al., 1997). As discussed previously, this may have an effect on student achievement. Mastropieri and Scruggs (2001) point out that the prevalent teaching paradigms in secondary education may limit the implementation of a coteaching model. The emphasis on content knowledge, independent learning and study skills, the pace of instruction, and the pressure of high stakes testing may all contribute to less than positive attitudes towards inclusive practices, such as coteaching, at the secondary level.

Another factor to consider in the successful implementation of a coteaching model is the beliefs of the coteachers. In an often-cited review of the literature on teacher beliefs, Pajares (1992) points out that the term belief is ill-defined in the professional literature, often referred to as attitudes, values, judgments, practical principles and understandings. Underlying this confusion is a misinterpretation about the distinction between teacher knowledge and teacher beliefs or understandings. He asserts that knowledge must exist within an affective and evaluative component called a belief. In other words, "Belief is based on evaluation and

judgment; knowledge is based on objective fact" (Pajares, 1992, p. 313). Furthermore, Pajares stresses that teachers' beliefs and understandings about education are always rooted in context and influence their daily practice. In addition, other researchers emphasize the importance of interrogating the connections between teachers' thinking and actions in order to understand effective teaching practices (Buehl & Fives, 2009; Jordan, Glenn, & McGhie-Richmond, 2010; Theriot & Tice, 2009).

Jordan and colleagues (2010) reported on a series of studies completed as part of the Supporting Teacher Effectiveness (SET) Project that examines effective teacher practices in elementary schools. The results indicate those teachers who believe disability lies within the students favor exclusive practices; teachers who believe disability is created in part by society favor inclusive practices and accommodations within the general education classroom. Effective teachers are able to engage all learners within the classroom. Damore and Murray (2009) report similar results from their survey study with urban elementary teachers. The researchers conclude that the 118 participants (certified in elementary, special education, reading, and an undisclosed area) support inclusive practices and accommodations within the general education class but have limited opportunities to engage in collaborative practices.

Conversely, studies examining the relationship between teacher beliefs about inclusive practices at the secondary level are less clear-cut. Teachers at the secondary level philosophically agree with the need to provide equal access to the general education curriculum for all students but feel less capable of effectively teaching all learners (Dymond et al., 2007; Van Reusen, Shoho, & Barker, 2001). Although it is generally regarded that the connection between teacher beliefs and teacher practices exists, there is a paucity of research examining this connection in relationship to collaborative practices, such as coteaching, and secondary education.

In 2001, Austin conducted a survey study with 139 collaborative general and special education teachers teaching in grades K-12, twelve of whom participated in a subsequent semi-structured interview. The participants represented 92 teaching pairs, with over 70% teaching at the secondary level. Although the reporting of the results was not with disaggregated data comparing elementary and secondary teachers, the findings indicated that there were several areas that the teachers theoretically considered important. The teachers, however, did not consistently implement these into their daily practice, such as meeting daily to plan, sharing responsibility for classroom management and instructional planning, and establishing and maintaining specific areas of responsibility. The findings reinforce the need for more research linking teachers' understanding (and beliefs) about coteaching and their practices of coteaching.

Implementation of a coteaching model. The implementation of coteaching has been described in numerous sources. Key elements in implementation of coteaching are teacher choice, active participation, adequate planning time, interpersonal communication skills, and sustained professional support (Friend, Cook, Hurley-Chamberlain, & Shamberger, 2010; Isherwood & Barger-Anderson, 2008; Simmons & Magiera, 2007; Weiss, 1999). Friend (2014) further describes coteaching as a service delivery option where two professionals of equal licensure and employment status participate in sharing instructional responsibility and accountability for a single group of learners in a shared workspace. According to this description, the basis for the coteaching partnership is parity. However, at any given time, the level of participation by each teacher may vary depending on his or her skills and the instructional needs of the group.

Gately and Gately (2001) describe a Coteaching Rating Scale that administrators and teachers can use to review coteaching in a particular classroom. This scale incorporates the

authors' developmental stages of coteaching, which are beginning, compromise, and collaboration. Characteristics of each stage, as more thoroughly described in subsequent work (Gately, 2005; Tobin, 2006), underscore the importance of relationship building and interpersonal communication skills. Furthermore, Gately suggests that these factors determine the rate at which coteaching dyads progress through the developmental stages of coteaching. These stages are supported by the work of Hall and Hord (2006), who describe implementation of reform programs in schools on a more general level than Gately and Gately. Both research teams discuss the importance of developing communication patterns that are conducive to bringing about a change in the school culture, practices of colleagues, and personal reflection. Isherwood and Barger-Anderson (2008) also affirm that coteaching dyads progress through developmental stages and that communication patterns are important to the success of the team. The authors studied 20 teachers (grades 6, 7 and 8) as a coteaching model was initiated in their middle school. The authors noted the challenges the participants had in redefining their role as a member of a coteaching dyad and in delegating or assigning tasks for their partner. The authors assert that this discomfort indicates that communication patterns are important to the success of the team.

Effective communication allows teachers to work through a number of potential problems, such as logistical concerns and effective use of planning time (Keefe & Moore, 2004). The high school teachers interviewed in the Keefe and Moore study clearly indicated the importance of communication, especially at the beginning of the partnership. This initial stage lays the groundwork for future collaboration (Gately & Gately, 2001; Hall & Hord, 2006; Keefe & Moore, 2004). It is important for coteachers to communicate preferences in classroom practices (i.e., hall passes, record keeping, transitions within the lesson), expectations, and

professional roles and responsibilities in the initial stages of the relationship to enhance collaboration and avoid conflict. As one participant in the Keefe and Moore study described it, "If you're having some type of conflict, but something made you uncomfortable or you didn't agree, you have to discuss it right away. You know it's like a marriage" (2004, p. 82), implying that establishing open communication in the beginning of the relationship is vital to its future success. Interestingly, Kohler-Evans (2006) also used a marriage metaphor to describe the coteaching relationship and the importance of communication.

One of the barriers to successful coteaching is the lack of preparedness of the educators involved (Dieker & Murawski, 2003; Kamens, 2007; McKenzie, 2009a; Ploessl, Rock, Schoenfeld, & Blanks, 2010). Schools may provide the necessary professional development to support inservice teachers in acquiring these skills, but increasingly a collaborative skill set is expected of novice teachers entering the profession (Austin, 2001; Friend, 2007). In fact, the Council for Exceptional Children (2012) and the National Council for Accreditation of Teacher Education (2008) have proposed a set of national teacher education standards that includes the knowledge, skills, and dispositions necessary for effective collaboration (Cramer, Liston, Nevin, & Thousand, 2010). This trend has forced teacher education programs to reconsider the ways in which they prepare teachers to collaborate with other professionals, parents, and teacher assistants.

Several teacher preparation programs have implemented coteaching in the field experiences, in particular during student teaching, to provide opportunities for teacher candidates to develop the necessary skills for collaboration. There are an increasing number of research studies that focus on teaching collaborative skills in teacher education and implementing coteaching at various stages in preservice education (see Arndt & Liles, 2010; Bennett & Fisch,

2013; McKenzie, 2009a; Pancsofar & Petroff, 2013; Santagata & Guarino, 2012). However, the research is either inconclusive or so specific to individual institutions of higher education that it has limited generalization value, leading researchers to call for more studies in this area (McKenzie, 2009a; Nevin, Thousand, & Villa, 2009; Pugach & Blanton, 2009; Stang & Lyons, 2008). Another concern with this line of research is the use of collaboration and coteaching as interchangeable terms and concepts, further conflating the results and recommendations. Despite these limitations, several studies offer some important findings relevant to coteaching in secondary schools.

Arndt and Liles (2010) conducted a study with preservice teachers in special education and social studies education. The 29 participants (12 preservice teachers in elementary special education and 17 preservice teachers in secondary social studies) engaged in course work that examined coteaching models and the completion of a co-planned content area lesson. Even though the authors reported that design flaws of this particular study affected the results, Arndt and Liles pointed out a number of important implications for further study. Most importantly, they recommend teacher educators consider the most effective practices to facilitate teacher candidates' understanding and development of collaborative practices and the skills needed for coteaching.

Teacher candidates may have a naïve understanding of the collaborative skills necessary for teaching; therefore, teacher preparation programs should provide scaffolded opportunities in coursework and fieldwork to develop these skills (Bennett & Fisch, 2013; Santagata & Guarino, 2012). Pancsofar and Petroff (2013), who studied the professional development experiences of 129 teachers, echo this conclusion. The participants had a range of certification areas (special education; early, elementary, and secondary education) and years of teaching experience. The

results of the online survey completed by the teachers indicated that those participants with learning opportunities in coteaching during their teacher preparation program had more positive attitudes and confidence about coteaching. Furthermore, special educators were more likely to have had these experiences as part of their teacher preparation than general educators were. Pancsofar and Petroff (2013) encourage ongoing professional development in collaboration, in particular coteaching, in order to improve teacher confidence and instructional practices to meet the demands of teaching in today's schools.

Although I agree that collaborative skills, especially those pertinent to coteaching, should be taught in teacher preparation programs, it is important to note that the underlying premise of a coteaching relationship is parity and shared accountability. The very nature of field-based experiences during teacher preparation skews the parity and shared accountability measures of a coteaching partnership. Furthermore, the formation of the teacher candidate-cooperating teacher relationship is to enhance the learning of the teacher candidate. The formation of the coteaching partnership is to enhance the learning opportunities of the students identified with special educational needs. Therefore, while acquisition of collaborative skills should be taught and practiced during teacher preparation, teacher educators need to be cautious of not further misusing the term coteaching to describe collaborative relationships during field experiences.

Outcomes for students with special educational needs. In an early study often referred to in the literature, Boudah et al. (1997) evaluated the implementation of a coteaching model for secondary schools that they developed called the Collaborative Instruction Model (CI Model). The purpose of this study was to determine the model's influence on student achievement and teacher behavior. The participants were the teachers and students from four experimental classrooms (one literature, one science, and two history classes) and four comparison classrooms

(one history, one science, and two literature classes). Grade levels ranged from sixth to tenth, each with one general and one special education teacher, and an average of 22 students in each class. At least four children in each class were classified with mild disabilities (i.e., specific learning disabilities) and the teachers reported that a large majority of students enrolled in the participant classes were low achieving. Data were collected on instructional actions of the teachers, teacher satisfaction with the model, student engagement, student use of four strategic skills, and student performance on content area tests. The experimental classroom teachers received professional development in the CI Model. One aspect of this model assists teachers in clarifying their roles and responsibilities during instruction. In the CI Model, the teachers assume role of presenter, who presents content information; or mediator, who adapts the instructional content to learner needs. In the CI Model the roles are fluid with any one lesson; this model is similar to the one teach – one assist model of coteaching previously described. Observations of the teachers indicated increased teacher mediation of student learning and involvement during instruction and decreased teacher time spent on non-instructional activities (i.e., managing student behaviors, grading student work, passively observing the class, or returning papers to students). The teachers in the experimental group reported satisfaction with the model. Although teacher mediation increased, student engagement minimally increased in the cotaught classrooms. Student achievement also did not show significant gains, and in fact, students with mild disabilities scored lower on classroom assessments. However, the non-random assignment of the students in the participant classes may have skewed the student outcome measurements. Nonetheless, because of the mixed results on student measures, the authors caution the use of coteaching at the secondary level.

However, several other studies indicated a positive effect on achievement for students with special needs in cotaught classrooms (Cramer & Nevin, 2006; Keefe & Moore, 2004; Kloo & Zigmond, 2008; Kohler-Evans, 2006; Wischnowski, Salmon & Eaton, 2004). These conclusions were based on teacher perceptions; no quantifying data were provided. In this era of high stakes testing and accountability, quantifying data are sought by policy makers. Because of this gap in the research base, Murawski and Swanson (2001) completed a meta-analysis of coteaching research, wherein the authors aggregated data from several studies to draw conclusions about the effect of coteaching on student achievement. One variable they studied carefully was the effect of coteaching on student achievement. Overall, the effect size was 0.40, indicating that coteaching is moderately related to influencing student outcomes. The greatest positive effect was in reading and language arts (effect size = 1.59) and moderate effect sizes for math and reduction of referrals (0.45 and 0.43, respectively). Only six of the 89 articles included in the meta-analysis, however, provided enough information to calculate an effect size. Three of the six were studies completed at the elementary level and the remaining three were at the high school level. The analysis combined these studies in order to ascertain an effect size. As more research is published, it would be helpful to be able to disaggregate the data to determine the effect size for elementary and secondary school classrooms or by content area in order to determine if, for instance, grade level or curricular area is a factor in positive student outcomes. The authors point out that a great deal of literature about coteaching recommends this model for middle or junior high schools, although empirical support for this practice is limited. Finally, this meta-analysis indicated that none of the studies included a measure of treatment integrity. Without measures of the reliability of implementation, the authors point out that the integrity of the coteaching treatment is uncertain.

Murawski extended her research by conducting another study in 2006. In this study of six urban ninth grade English classes, the researcher was able to compare student achievement over four different conditions. She observed 110 students (72 general education students and 38 students with learning disabilities) and four teachers over a ten-week period. The four classroom conditions were: one cotaught heterogeneous class with one general and one special educator; one mainstream class with heterogeneous learners and one general education teacher; one class with no identified special needs learners and one general education teacher; and one class with only special needs learners and one special education teacher. Observations as well as comparison of grade reports and standardized testing were sources of data. The results indicated that there was very little statistical difference in overall student achievement over the four conditions. Overall, students with learning disabilities in the cotaught classrooms did not produce significantly different outcomes compared to those students with learning disabilities in any of the other classroom conditions. Closer examination of the individual test scores, however, did yield some differences in student achievement among the classroom conditions. Specifically, the students with learning disabilities in the cotaught classrooms did improve on spelling and reading comprehension assessments. Students with learning disabilities improved in math and vocabulary regardless of the classroom condition. Spontaneous writing skills of the students with learning disabilities in the cotaught classrooms decreased. There was no evidence that the teachers in the cotaught classrooms used a variety of instructional techniques and there was very little differentiated instruction in any teaching condition. It is important to note that the participants in this study all had at least three years of teaching experience but no prior experiences in coteaching. The researcher did provide six hours of training "…on the characteristics and essentials for successful co-teaching…" (p. 231). The observational data

from this study seem to indicate that the teaching teams were at a beginning stage of coteaching, as described by Gately and Gately (2001). The author concludes that teachers need to participate in initial and ongoing professional development in coteaching techniques in order for this type of collaboration to continue as a viable service delivery model to meet the needs of students with learning disabilities.

Fontana (2005) also looked at the achievement of students in cotaught classrooms. In a unique study design, the researcher compared the final course grades for a target group of 17 students with learning disabilities in seventh grade cotaught class, with the final course grades in eighth grade, after one year in a cotaught class; students also received one instructional period of resource room support throughout the academic year. These grades were also compared with a control population of students with learning disabilities in the school who did not receive any instruction in a cotaught classroom, but received one period per day of instructional support in a resource room classroom. In addition, Fontana conducted individual assessments in math, writing, and social skills. The students in the cotaught classroom showed significantly higher final course averages and individual achievement scores in math and social skills after eighth grade. They did not significantly improve in writing skills. The four teachers in this study had very little initial or continuing support.

Using archival data from 1994-1996, Rea, McLaughlin, and Walther-Thomas (2002) analyzed course grades, standardized testing results, in-school and out-of-school suspension, and school attendance for 36 eighth grade students classified with learning disabilities. The students in the study attended two schools in one suburban district. Data that are more recent were unavailable to the researchers because of inconsistencies in the district's data collection and changes in the state assessment program. One school in the district utilized an indirect model of

teacher collaboration that consisted of the general educator and special educator meeting before or after school to discuss student progress, to problem solve areas of difficulty, and to arrange testing assistance as needed. The general educator, with a teaching assistant for support, provided instruction in core content areas. The special educator delivered special education services during a separate period. The authors use the phrase "pullout services" to describe this indirect collaboration model. The other school used a more direct collaborative model by implementing coteaching in each academic content area class with one special and one general educator. These teachers cotaught four periods each day with one period of individual planning and one period of team planning. The authors use the phrase "inclusive services" to describe this direct collaboration model. In comparing the data from these two schools, Rea, McLaughlin and Walther-Thomas reported a number of results. Their findings included the following:

1. Course grades – students in the inclusive setting received better grades in all four academic content areas (language arts, math, science, and social studies).

2. Standardized testing – students in the inclusive setting received higher scores on the language and math subtests; students received similar scores in both schools on the reading comprehension, science, and social studies subtests.

3. In-school and out-of-school suspension – no significant difference between the two schools was noted.

4. Attendance – the students in the inclusive setting had better attendance rates.

The results of this study are significant because the researchers have clearly documented the positive impact of coteaching in this district. The authors point out that further research in other grade levels and larger school districts will extend these findings as will conducting this analysis with more recent data on student achievement.

In contrast, Hang and Rabren (2009) report that although academic gains were found, behavioral referrals and attendance did not improve for the student participants in their study. In their study, the participants were 58 students identified with special educational needs, 31 general education teachers, and 14 special education teachers -- all in their first year of coteaching in grades one through ten in a suburban southeastern U.S. school district. Using student and teacher surveys to determine students' and teachers' opinions about coteaching, observational data to confirm implementation of coteaching practices, and statistical comparison of standardized achievement tests, the authors report that the students identified with special educational needs had improved achievement in math and reading as compared to the year before when they were not in cotaught classrooms. Furthermore, the achievement of the students was typical of the entire school system's student population suggesting that coteaching provides suitable support for the academic achievement of students with special educational needs on standardized tests. Hang and Rabren postulate that the lack of improvement in attendance and behavioral referrals is due to a lack of role clarification and inconsistent behavioral expectations for the students on the part of the coteachers. This study points to the need for more research related to behavioral expectations and role definition of coteaching partners.

Rather than comparing achievement scores, Magiera and Zigmond (2005) tabulated time on-task and interactions with the teacher for 18 middle school students (grades 5-8) with high incidence disabilities. The researchers observed 11 classes four times under each of two conditions: with a general and special educator in the classroom and with only the general educator in the classroom (solo taught). The purpose of the study was to compare these two instructional experiences. One valid conclusion that can be drawn from this study is that the students with a disability received more individualized interactions from the special educator

during the cotaught classes. When the special educator was not present, the general educator did interact more frequently with the students identified with a disability, but still not as much as the special educator did during coteaching. Time on-task did not significantly change under the two conditions and the classrooms remained generally the same whether or not the two teachers were in the classroom. No measures of student achievement in the two conditions were gathered for this study. Although not explicitly stated by the authors, the increased contact time with a teacher during the cotaught classes may have important ramifications for all students in the classroom.

Outcomes for students without special educational needs. An important consideration in examining student outcomes in cotaught classrooms is the consequence of this collaborative effort on typical learners. Scruggs, Mastropieri, and McDuffie (2007) carried out a meta-synthesis of data on coteaching using 32 qualitative research studies conducted between 1995 and 2005, in an effort to develop new understandings about student outcomes from the results of the reviewed studies. The authors examined 14 studies related to coteaching in secondary settings; four of these studies mentioned the effects of coteaching on the students who are not at risk or identified with special needs. Scruggs and colleagues noted that the reported benefits for students without disabilities centered on social skills, rather than academic skills. Teachers in some of the studies commented about the positive effects of coteaching as a model for the students to observe collaborative skills. In other words, the students benefited from seeing professionals work collaboratively; there was scant documentation about the improved social skills of the students themselves except for the studies by Hardy (2001) and Trent (1998). Trent also reported improved organizational skills by the typical learners as well as the identified students in the classroom because of the strategy instruction the special educator provided. Wilson and Michaels (2006) completed a survey of 346 secondary students from a suburban

district. In this study, a convenience sample of special education (n=127) and general education (n=219) students in grades 7 through 11 were asked to respond to a questionnaire about the advantages and disadvantages of having two teachers co-instructing their English course (one general and one special educator). The survey included ten Likert scale questions and three open-ended questions. The qualitative and quantitative results indicate that all of the students had favorable opinions of this teaching arrangement. Similar to the Magiera and Zigmond (2005) study described previously, the participant students with a disability and those without a disability in the Wilson and Michaels's study reported the presence of two teachers in the class did lead to more contact with the teachers. Both groups of respondents in the Wilson and Michaels's study indicated the increased teacher contact resulted in increased availability of individualized assistance both in-class and out-of-class, improved understanding of content, and more time-on task.

It is important to note that in the studies that described student outcomes, the authors did not distinguish student outcomes based on the use of one of the six coteaching models (one teach-one assist, station teaching, parallel teaching, alternative teaching, teaming, or one teach-one observe). So while the most prevalent model of coteaching is the one teach one assist model according to several researchers (Fontana, 2005; Keefe & Moore, 2004; Weiss, 1999; Wischnowski, Salmon, & Eaton, 2004), it is not clear whether any other coteaching model would be more or less effective. This gap in the literature seems to indicate that oftentimes coteaching is considered a generic approach to meeting the needs of diverse learners in the classroom but in actuality, it may be that there are distinctive differences in student outcomes based on the professional decision making of the coteachers as to which coteaching model to use and when.

Summary

Effective inclusive practices that result in higher levels of student achievement for all learners, including those with diverse learning needs, is the topic of much of the current professional literature in education. Schools require a culture of collaboration as both special and general educators confront a variety of issues in establishing pedagogical practices that meet the needs of diverse groups of students. At the elementary level, coteaching has been the focus of several investigations and is documented as an effective practice (Keefe & Moore, 2004). However, coteaching in the form of direct collaboration among secondary teachers is a less common and less understood phenomenon (Dieker & Murawski, 2003; Fontana, 2005; Simmons et al, 2012). There is limited research in how collaborative practices, such as coteaching, are enacted in today's secondary schools (Magiera & Zigmond, 2005; Mastropieri & Scruggs, 2001; McDuffie et al., 2009; Moorehead & Grillo, 2013; Weiss & Lloyd, 2002), which contextually are much different settings than elementary schools.

Another challenge in understanding coteaching in secondary schools is the inconsistencies in the professional literature. Several studies available in the professional literature inconsistently use the term "coteaching," although in this review I have attempted to use only studies that define coteaching as I do, unless otherwise noted. The fidelity in implementing coteaching, even when it is appropriately defined, is missing from much of the research, as is consideration of successful and unsuccessful coteaching pairs, experienced and novice coteaching pairs, and comparing coteaching pairs from different school districts in the same study. In addition, behavioral and grade changes resulting from coteaching are often reported as perceived benefits rather than definitive outcomes. In fact, much of the literature on coteaching is not research based and often is focused on special education rather than the impact

of coteaching on both general and special education. These factors warrant a closer look at the coteaching practices in secondary schools. The following chapter describes the design of my study whereby I interrogate some of these factors and the complexities of coteaching at the secondary level.

Chapter 3 - Design of the Study

In this chapter, I outline the theoretical underpinnings of my chosen methodology. I then describe the research methods used in this study—semi-structured interviews and observation—as well as the reasons for choosing these methods. Next, I describe the landscape of education during the study, the participants, and their schools. I continue with an explanation about the process for the collection of data, and the procedures used in data analysis. I conclude the chapter with a statement about my subjectivity and how my positionality may have impacted the study.

For this study, I relied on qualitative research methods to gather rich descriptions (Bogdan & Biklen, 2003; Corbin & Strauss, 2008) for an analysis of coteaching. Data were gathered through in-depth interviews and observations of coteachers. In analyzing the data, I wanted to develop a deeper understanding about secondary special and general education teachers' views of coteaching. From this understanding, I sought to develop a theory of coteaching grounded in my participants' lived experiences and my observations of their coteaching practices. Descriptions and analysis of the ways the participant pairs think about and enact coteaching practices within the context of sharing instructional responsibilities allowed me to probe the questions that guided this study:

1. What models of coteaching are employed by participant pairs who are general and special education teachers at the secondary level?

2. How do participant pairs understand coteaching?

3. What are some of the challenges participant pairs report in instituting or sustaining coteaching?

4. What do secondary teachers report as influencing their coteaching practice?

Theoretical Underpinnings of this Study

In deciding on the type of research method that can best lead to an understanding of coteaching practices in secondary schools, I was drawn to qualitative methodologies. The goal of qualitative research is to interrogate human behaviors within the contexts of their natural occurrences; qualitative work seeks to understand the experiences from the perspectives of those living it (Bogdan & Biklen, 2003). My approach to understanding coteaching in secondary schools is grounded in qualitative methodology; this methodology influenced the ways that I have conceptualized the phenomenon of coteaching, developed my research questions, and selected methods of collecting and analyzing data. In the subsequent discussion, I describe the theoretical foundations of qualitative methods, followed by the methods I used to gather and analyze my data in order to address my research questions.

I believe that people make sense of their lives based on an interactive process between humans and symbols within the context of their lived experiences. We create meaning during social interaction; how we present and construct our views depends on how we define situations in the presence of others. In other words, we do not simply react to the actions of others but we respond based on the meaning we ascribe to their actions; people act as they do because of how they define situations. To understand the work of teachers, we must consider the context, previous experiences, and interactions the teachers encounter within their professional work. By interrogating the meanings associated with these dynamic elements, we gain insight into the thinking, actions, and choices that an individual teacher makes.

This perspective aligns itself with symbolic interactionism. Symbolic interactionism, based on the work of Meade (1934) and subsequent work by Blumer (1969), asserts that humans make meaning from their experiences by a tripartite process:

(a) human beings act towards things on the basis of the meanings that the things have for them; (b) the meaning of such things is derived from, or arises out of, the social interaction that one has with one's fellows; and (c) these meanings are handled in, or modified through, an interpretative process used by the person in dealing with the things he encounters. (Blumer, p. 2)

No event, interaction, or object has meaning in and of itself. Meaning comes from our interaction and reaction to other human beings and our simultaneous interaction with objects, situations, events and things that are present. As such, meanings can change depending on the context. This perspective is important when considering the coteaching efforts of teachers; there may be several opportunities for a teacher to engage in collaborative actions within a day and the nuanced differences in these actions depend on the teacher's individual understanding of collaboration and coteaching, the situation, and the others who are involved. Therefore, to understand coteaching as a subset of collaboration, it is necessary to understand the meaning that teachers derive from the context, the situation, and their interactions with others.

Symbolic interactionists employ qualitative methods for gathering data about the meaning making of the individuals and situations being explored. These methods may include observations, life histories, letters, diaries, public records, group discussions, and interviews (Hatch, 2002). Interviewing teachers is an ideal way to gather data for this project. In-depth interviewing can create a unique speech event allowing for open-ended responses and the opportunity for the participants to explain and clarify their unique perspectives on coteaching. Several researchers have stressed the importance of asking coteachers themselves about their practices as a way to untangle the complexities of coteaching (see Austin, 2001; Damore & Murray, 2009; Friend & Cook, 2000). In addition to interviewing, an observation of the

coteachers in practice is an appropriate data gathering technique for this study. Data gathered through observation can add to a "holistic understanding of the phenomena under study" (DuWalt & DuWalt, 2002, p. 92). Such data have the potential to clarify situations described previously, illuminate communication patterns, and contextualize the ideas shared during interviews. Multiple data collection procedures within a study can also add to the validity of the findings (DuWalt & DuWalt) and provide an opportunity for a more nuanced understanding of the phenomenon under study.

Landscape of Education during the Study

Secondary schools educate students in grades seven through twelve. Common in the United States for the last 40 years is a division between middle school, grades seven through eight or nine, and high school, grades nine or ten through twelve. Oftentimes the separation of grade levels is determined by stakeholders in school districts for logistical reasons, as well as a belief in the "middle school concept" (Lounsbury, 2009, p. 32) for educating preadolescents. The middle school concept is, in part, a recognition that there are developmental differences between a child (in elementary school), a preadolescent (in middle school), and an adolescent (in high school), and that schools should structure the school day and instructional program accordingly. Currently, there is some pressure to reimagine the separation among grades levels to develop schools for children in grades K-8 and a separate school for children in grades 9-12, thus eliminating middle schools (Wiles, 2009). An in-depth discussion of this topic is beyond the scope of this study as is a discussion interrogating the rationale for stakeholders in the participant schools for separating the grade levels as they have.

Nonetheless, it is important to note that there are differences in the way the participant middle schools and participant high school are organized. The organization of middle schools,

including the participant middle schools, centers on interdisciplinary teams at each grade level. As such, a team of teachers representing grade level content in mathematics, social studies, science, and English language arts provide instruction in their content area to a class of students who rotate among all of the teachers during the instructional cycle. The idea behind such an organizational design is to provide a "balanced curriculum [that] features content, skills, and personal development" (Wiles, p. 4) and promotes a community of learners. Conversely, the organization of high schools, including the participant high school, is by subject area departments with a focus on content based-curricula. Consideration of the organization of middle schools and high schools is important in understanding the lived experiences of the participant coteachers in this study.

Schools are political places influenced by and reflective of the larger society. Therefore, it is important to describe the context of public education during data collection for this study in order to understand more fully the phenomenon of coteaching in secondary schools. Before and during the time when the data for this study were collected (May 2011 to March 2012), a number of federal and state educational policy initiatives intertwined to affect the atmosphere in schools more generally, the morale of members of the teaching profession, and classroom practices. Key among these initiatives was the federal government's competition for extra school funding, called "Race to the Top." As part of the Race to the Top grant application process, state education departments had to propose a comprehensive statewide education reform plan based on four key areas. As described by the U.S. Department of Education, these areas are:

1. adopting standards and assessments that prepare students to succeed in college and the workplace;

2. building data systems that measure student growth and success, and inform

    teachers and principals how to improve instruction;

3. recruiting, developing, rewarding, and retaining effective teachers and principals,

    especially where they are needed most; and

4. turning around their lowest-performing schools (US Department of Education,

    2012).

New York State (NYS) was awarded $700,000,000 in Race to the Top funds in August 2010 (US

Department of Education, 2010). The plan from NYS included detailed actions in each of the

areas outlined above. Most relevant to this study was the adoption of the Common Core State

Standards (CCSS) and the implied use of standardized measures of student learning associated

with these standards; the implementation of a new process for Annual Professional Performance

Review (APPR); and an updated teacher evaluation process based on student test scores.

Simultaneous to the state's Race to the Top proposal, in 2010 New York State passed

legislation that required changes to the annual evaluation of teachers and administrators, who

would be given composite effectiveness scores and ratings of "highly effective," "effective,"

"developing," or "ineffective." The APPR composite scores were determined on a point system

based on three measures: student growth on state assessments or comparable local measures;

other measures of student growth as decided by the local school district; and, multiple measures

of teacher effectiveness (NYSED, 2015a). APPR would, in part, be based on student

achievement of the CCSS as determined by the results of state or local assessments. At the time,

new assessments were being developed for grades 3-8 based on the CCSS. Revisions were also

being made to tests in high school content areas (i.e., NYS Regents Exam in Elementary

Algebra, NYS Regents Exam in Living Environment, NYS Regents Exam in Global History and

Geography, NYS Regents Exam in Comprehensive English, and local exam in US History and Government; NYSED, 2015a). The APPR score in the category of other multiple measures of effectiveness would include two observations, one of which must be unannounced, and would be based on ratings on a teaching standards rubric. Uncertainty about the nature of the new APPR process and consequences were widely discussed among teachers and administrators at the school and throughout the state. Teachers and administrators, and even State Education Department representatives, were unclear about how the new APPR would take into consideration such practices as coteaching, team-teaching, and other variations in instructional practice or instructional arrangements used in inclusive classrooms.

The CCSS, developed by the National Governors Association and the Council of Chief State School Officers, focused on English language arts (ELA) and mathematics. In secondary schools, the ELA standards for reading, writing, speaking, and listening were also incorporated into literacy standards for the content areas of social studies, science, and technical subjects. The expectation was that students would develop the academic language skills appropriate in these fields of study. The goal of the CCSS was to stipulate essential knowledge and skills development at each grade level leading to better academic gains for all learners. The heightened achievement levels and more rigorous curricular demands would be on par with the best educational systems in the world. Another purported benefit of the CCSS was to establish consistent expectations across the United States, leading to the development of high quality curriculum materials, better teacher preparation programs, and research validated best instructional practices (Conley, 2011).

In New York State, the CCSS were adopted in January 2011 (NYSED, 2014); therefore, the CCSS were only beginning to influence teaching practices in the participant middle and high

schools for this study; elementary schools were more significantly impacted by the rapid adoption of the standards. Nonetheless, the fervor of mass media coverage of the new rigorous standards, the pressure to use new high stake tests to assess student achievement, the confusion on how student achievement would be used to assess teacher effectiveness, and the use of teaching standards rubrics to rate teachers led to tense educational environments. The confluence of these initiatives changed the atmosphere in schools across the country, the state, and the local districts of the participants in this study.

The Participants and Schools

In the following section, I describe participants in this study, how I accessed and entered the field, and the broad context for the sites where I gathered data. This is followed by a section describing the constraints I encountered while conducting this study and a more specific description of the two school districts where I interviewed and observed the participant coteachers.

Procedures for Accessing and Entering the Field

Treehaven School District. In anticipation of conducting this study, I informally asked several colleagues about their knowledge of coteaching in area schools. A colleague invited me to discuss my ideas about this study to a group of administrators at Treehaven Central School, a suburban district in upstate New York educating nearly 5,000 students from kindergarten through twelfth grade. I provide a thorough description of the district in the following section. The meeting was held in December 2010 with a group of administrators, including the special education director, the high school principal, and the two middle school principals. The special education director was interested in coteaching and had been at the forefront encouraging the district administration to adopt this service delivery model to meet the needs of the learners

identified with special educational needs. The administrators at the meeting were very enthusiastic about the study and offered their school buildings as a site for the study. They also indicated a willingness to allow me to interview teachers and observe classroom instruction. Additionally, they agreed to canvas the several coteachers who were currently at the middle and high schools to assess their willingness to participate.

Purposeful sampling, described as a deliberate decision to solicit study participants according to a preconceived initial set of dimensions (Coyne, 1997), was used to select participants for this study. By using this sampling method, I hoped to identify approximately six coteaching pairs willing to share their current understanding and practice of collaboration. Most importantly, I sought participant pairs that included one teacher in the role of general educator and one teacher in the role of special educator who cotaught at least one class together. To enrich the data set, I sought out general and special education teaching partners in a variety of secondary grade levels, content areas, and personal descriptors (i.e., certification areas, years of experience teaching and coteaching, and gender). As a way to prioritize other descriptors, I first tried to get a variety of content areas represented and then considered years of coteaching experience and years of teaching experience. I endeavored to have male and female perspectives in the study. I also found one special educator coteaching with multiple general educators. In this case, I encouraged participation of each of these content area partners to illuminate any interesting differences in their coteaching practices. This resulted in two participant pairs with one special educator in common.

Following the meeting at Treehaven School District with the administrators, I requested and received a letter of cooperation from the district's special education director to conduct research in the district, specifically in the middle and high schools. I then proceeded to submit an

application to Syracuse University's Institutional Review Board (IRB) on February 25, 2011, requesting permission to conduct human subject research. The IRB required that I obtain permission from the parents of the students in the classrooms I would be observing. The Treehaven School District did not agree with this IRB requirement and after some discussion, all parties agreed that a parent notification letter would be sent home prior to my classroom observation. The district director of special education, the building principal, and myself signed the parent notification letter. I received approval from the IRB to proceed with the study on April 13, 2011.

I presented copies of the Parent Letter (Appendix A) to each of the coteachers I would be observing for distribution to the students to be taken home to parents. I did not receive any feedback from the participants regarding parental concerns about the study. During my observations, I read the Script for Student Participation (Appendix B) to six out of the seven classes I observed. In one class, the general education teacher read the letter to the students at the beginning of the instructional period. After each reading of the letter, I asked the students if they had any questions; no student in any class asked a question. I attribute this to the students being made aware of my coming beforehand. I prepared an additional participant consent form in case any student in the class I observed was over 18 years of age. This consent was not utilized as no student in an observed class was over 18 years of age.

Beginning in April 2011, I emailed the two middle school principals and one high school principal who attended the meeting described above. In this email, I reiterated my interest in learning more about coteaching and asked the email recipients to recommend coteaching pairs from his or her school building to participate in this study. The following description is excerpted from the email, which was used when I requested recommendations for participant pairs:

Please recommend secondary school teachers (middle or high school) who are coteaching as part of their daily teaching practice to participate in a research study. In particular, I am interested in interviewing general and special education teachers who work collaboratively to meet the needs of students they have in common while sharing the same instructional space.

The principal from Cedar Middle School gave me the name of one coteaching pair in the building willing to participate in the study; this is how I came to work with Heidi and Ed. Likewise, the principal from Willow Middle School gave me the name of one coteaching pair in the building also willing to participate, Karen and Wendy. The Walnut High School principal's recommendation did not come until the next school year. At the time of my first email to the high school principal, the teachers in the building were preparing for testing and the principal did not feel the timing was appropriate for me to begin the study in the building. Therefore, the following school year, I met Beth and Tina.

For each recommended pair, I emailed a message introducing myself, briefly explaining the study, and requesting a time when we could meet. In this email, I also confirmed that the teachers were coteaching a class in seventh through twelfth grades. Once a time was agreed upon, I informed the principals in each building. In each case, the building principal suggested we meet before my meeting with the coteachers. This provided me an opportunity to thank them once again for opening the building to my study and to get information about the protocol for entering the building. Both principals were welcoming and, in fact, the principal of Cedar Middle School gave me a permanent guest identification badge and a key to the faculty restrooms. After meeting with each middle school principal in her/his respective buildings, I proceeded on my own to the general educator's classroom for the initial interview with both coteachers.

After I met with the principal of Walnut High School, he notified Tina, the special educator of the coteaching pair, via the intercom to ask her to meet me at the office. When Tina met me at the office, we proceeded to her classroom for our initial individual interview in which she discussed her partnership with Beth.

At the initial meeting with each participant pair, I outlined the study, gave the participants an opportunity to read the informed consent letter (Appendix C), and asked for his or her signature. All participants asked to participate in the study agreed to do so.

Initially, three coteaching pairs were recommended from the district. During the initial interview, each of the special educators mentioned that he or she also cotaught with another teacher in a different content area. I asked these informants if they would be willing to ask the other content area coteachers currently not in the study if they would be willing to participate. All three agreed to ask but only Tina, the high school special educator, provided the name and contact information for her other coteachers. I requested, and was given permission by the high school principal, to include this other teacher in the study. Thus, I started working with Tina and Dan as a coteaching pair.

During a subsequent interview, Tina compared her coteaching experiences with those of another coteaching pair in the building. I asked if she thought they might be willing to be participants in the study. She agreed to ask them while I contacted the principal for his approval. Interestingly, the principal agreed that I could contact this third coteaching pair from his building with the stipulation that our interviews did not occur during instructional time. I agreed and the coteaching pair of Mark and Lisa became the third coteaching pair from this building to participate in my study. This coteaching pair cotaught a self-contained science class; all the students in the class were identified with special educational needs. Originally, my intention for

this study was to interview and observe coteaching pairs who were instructing a heterogeneous group of students; however, intrigued by this instance of coteaching and the insight this coteaching pair might offer, I decided to include this pair in the study, as well.

This brought the number of coteaching pairs to five. I felt that I had exhausted my source of participants in this district but still wanted to get more coteaching pairs to provide rich descriptions of their coteaching experiences. Overall, data collection in the Treehaven Central School District took place from May 17, 2011, through December 16, 2011, excluding the summer vacation.

The Panoramic School District. Mountainview Middle School in the Panoramic School District was the second source of coteachers for this study. I knowingly increased the number of coteaching pairs in my study to seven because one of the coteaching pairs from Treehaven Central School did not teach a heterogeneous group of students, varying from the original parameters I established for the selection of participants. As described above, I since decided to keep this participant pair in the study.

The Panoramic School District is a large suburban district in Upstate New York educating nearly 9,000 students in grades kindergarten through twelfth. Mountainview Middle School serves more than 1,500 students in grades eight and nine. I provide a more thorough description of this district in the following section. As a parent member of a district committee, I was able to ask the superintendent about conducting research in the district. I was interested in conducting research at Mountainview Middle School because I had learned of the coteaching arrangements, termed "blended classrooms" by the district, from various discussions at school events. The superintendent sent me the district's research proposal request. I submitted the completed proposal request and was granted access to the school on November 29, 2011. This

approved research proposal request served as the letter of cooperation, a required component of the IRB Amendment that I submitted on January 11, 2012, in order to add this site to my study. I was granted permission to use this school by the IRB on January 17, 2012.

Using the same procedure I described in contacting the Treehaven Central School principals, on January 20, 2012, I requested recommendations from the Mountainview principal for coteachers to participate in my study. She responded on February 1, 2012, with contact information for four pairs of coteachers. I selected two sets of coteachers, Steve and Rachel who teach social studies, and Deanna and Fred who teach a foreign language, to round out the content areas and grade levels represented in my study. In a similar fashion as described above, I was able to secure consent to participate from the Mountainview coteachers with ease and informed the principal of my plans. Parents were notified of my research in their child's classroom prior to my observation. The data collection from Mountainview Middle High School took place from February 7, 2012, through March 6, 2012.

Description of the Settings

Treehaven School District. Treehaven School District School is a large suburban district that has a K-12 enrollment of nearly 5,000 students. In this district, there are several elementary schools (grades K-6) and middle schools (grades 7-8). The student bodies from the middle schools merge into one high school (grades 9-12). Cedar Middle School has a student enrollment of nearly 700, 7% of whom are students identified with a disability. Willow Middle School has a student enrollment of over 500, 13% of whom are students identified with a disability. Walnut High School enrolls slightly more than 1,700 students, 10% of whom are students identified with a disability. The average roster for academic classes at Cedar Middle School, Willow Middle School, and Walnut High School ranges from 22-24 students. The student ethnicity at Treehaven

Central School is predominantly white/non-Hispanic (nearly 90%) and nearly 20% of the total student population are eligible for free or reduced lunch (New York State District Report Card, Accountability and Overview Report 2010-11).

All of the secondary schools in this district follow a similar bell schedule; there are eight 42-minute instructional periods each day with a 30-minute lunch and an optional after-school interaction period. The Student Handbook, which is available for each student in the district, specifies the bell schedule. The handbook also includes expectations of students and other relevant information such as consequences for inappropriate behavior, absences, and tardiness to school or class, contact information for school personnel, and a school calendar. The Student Handbook is available in paper copy and digitally on the district website. The district website is an informative resource for families and school personnel.

Cedar and Willow Middle School. Cedar and Willow Middle Schools are welcoming, three story buildings that appear in good repair. Both school buildings have similar entrance procedures. Inside the front entrance at each building is a sign-in book with an attendant checking for proper identification and controlling access to the building interior. The hallways, lined with student lockers, are clean and free of clutter. During student passing times, teachers often stand in the hallway near their classroom doorways.

At each grade level, students are divided between two teams. Each team consists of general education teachers for the core content areas (math, science, English, and social studies) and one special education teacher. The special education teacher coteaches two periods each day: one with the English teacher, the other with the math teacher; teaching assistants, under the guidance of the special educator, support learners in the social studies and science classes. Depending on individual student needs, there may also be a teaching assistant in the cotaught

classroom. A student's Individualized Education Plan (IEP) specifies the special educational services each child receives and is used to schedule students in an instructional period with the appropriate level of support. This scheduling is done through the district Guidance Department with administrative approval. The classroom teachers have little say in student scheduling in each class or the number of students who require special educational support in any one given class. At the end of the school year, classroom teachers can make recommendations regarding the interactions among the students and advise schedulers about next year's class rosters.

Walnut High School. Walnut High School is a three story brick building located in an educational complex that includes an athletic center on the property. The entrance to the high school is circular and modern. Visitors to the school must sign in at the desk in the main office, located near the entrance. The staff in the main office check a visitor's identification, issue a visitor's pass, and call the teacher or classroom the visitor is visiting. The visitor then walks to his or her destination. Tina or Lisa, both special educators, met me at the main office and escorted me to the classroom for my scheduled interview or observation. The hallways were tidy and lined with student lockers; the hallways are decorated minimally with announcements advertising student functions. In each wing, there is a large plastic garbage can in the middle of the hallway. Students passed in the hallways appropriately, laughing and talking to peers.

Panoramic School District. Panoramic School District School is a large suburban district that has a K-12 enrollment of over 9,000 students. In this district, there are several elementary schools and middle schools, and one high school. The student ethnicity at Panoramic School district is predominantly white/non-Hispanic (nearly 90%) and nearly 30% of the student population is eligible for free or reduced lunch (New York State District Report Card, 2011-12). I interviewed and observed participant pairs at Mountainview Middle School. Mountainview

Middle School has a student enrollment slightly over 1,500 in grades eight and nine, 13% of whom are students identified with a disability. The average roster for academic classes at this school is 27 students.

All of the secondary schools in this district follow a similar bell schedule; there are four 84-minute instructional blocks each day with a 30-minute lunch and an optional after-school support period. The Student Handbook, which is available for each student in the district, specifies the bell schedule. The handbook also includes school policies on attendance, tardiness, dress code, behavioral expectations, and contact information for district personnel. The district website is an informative resource for families and school personnel.

Mountainview Middle School. Mountainview Middle School is a three-story brick building that appears in good condition. Upon entering the building, visitors are required to stop at a security desk for clearance to enter the building. Upon entering the building for each interview and observation, I was greeted by a security guard who checked my identification, issued a self-adhesive visitor's pass with instructions to place on my coat, and called the classroom of the teacher I was going to visit. Once the teacher responded, I was given verbal directions to proceed to the classroom. As I walked to my destination, I noted that there was a security guard walking through the hallways to monitor activity. Generally, the hallways were clean and free of debris with rows of lockers on either side of the hallway. There were a few posters hung in the hallway announcing school events. During student passing times, the students seemed to move promptly and appropriately to their next destination.

There is one cotaught content class at each grade level. Thus, at each grade level there is one social studies teacher coteaching with a special educator, one math teacher coteaching with a special educator, and so on. In addition, there is one coteaching pair in the school coteaching a

foreign language. In other classes, there are teaching assistants available to provide support for students with disabilities. Depending on individual student needs, there may also be a teaching assistant in the cotaught classroom. A student's Individualized Education Plan (IEP) specifies the special educational services each child receives and is used to schedule students in an instructional period with the appropriate level of support. The guidance department schedules students into courses with administrative approval. The teachers have minimal say in the scheduling process.

Description of Participants

In total, seven coteaching pairs participated in this study. Table 1 summarizes the several descriptive characteristics of the participants. Each coteaching pair has one certified general education teacher and one certified special education teacher. The content areas and grade levels represented in this study are Earth Science grade 9, English grade 7, Living Environment grade 10, Mathematics grade 8, Mathematics grade 9 (Integrated Algebra), Social Studies grade 9 (Global Studies), and French grade 9. One special educator at the high school level is a partner in two of the coteaching sets; therefore, there are only 13 certified teachers participating in the study, rather than 14. The years of teaching experience represented by this group of informants ranges from 4 to 38; the years of coteaching together ranges from one to seven. There are five male teachers (two special educators, three general educators) and eight female teachers (four special educators, four general educators), all of whom are white. The proportion of male participants is slightly higher than the national ratio of male to female teachers in secondary public schools in the United States at the time of the study. The participants also represent a higher percentage of white teachers than the national ratio; however, the student body in both school districts is predominantly white.

Table 1

Description of Participants

Co-teaching Pair	Participants	Gender	Years of Teaching Experience	Years in this Coteaching Pair	Certification Area	School	Subject/ Grade
#1	Karen Wendy	Female Female	14 23	3	English 7-12 Special Education K-12	Willow	English/ 7
#2	Heidi Ed	Female Male	36 16	4	Math 7-12 Special Education K-12	Cedar	Math/ 8
#3	Beth Tina	Female Female	11 38	1	Math 9-12 Special Education K-12	Walnut	Integrated Algebra/ 9
#4	Dan Tina	Male Female	32 38	7	Earth Science 9-12, Health 9-12 Special Education K-12	Walnut	Earth Science/ 9
#5	Mark Lisa	Male Female	19 9	2	Biology 9-12 Special Education K-12	Walnut	Living Environment/ 10*
#6	Deanna Fred	Female Male	8 29	3	French Special Education K-12	Mountainview	French/ 9
#7	Steve Rachel	Male Female	10 4	3	Social Studies 7-12 Special Education 7-12	Mountainview	Global Studies/ 9

*all students in this class identified with special educational needs

Procedure for Data Collection

Data were gathered through two semi-structured interviews and one observation of the coteachers teaching one instructional period. My intention was to interview the coteaching pair jointly, observe their coteaching for one instructional period, and then interview each coteacher individually. Initially, my thinking behind this format was to become familiar with the teachers and their understanding of their coteaching. The observation would then be an opportunity to observe their coteaching. The second individual interview would provide a chance for each teacher to talk independently about coteaching and to address any questions I had about her/his role in the class that I observed. Each interview was conducted in a location that was private; only the interviewee(s) and I were present in the room for the interview. I asked each interviewee for permission to digitally record our discussion. The length of the individual interviews ranged from 27:28 to 73:36 minutes; the length of the joint interviews ranged from 32:35 to 50:24 minutes.

As described in more detail below, I was not able to follow my original procedure for data collection for every coteaching pair, due to some of the challenges and the dynamic nature of doing research in schools. For some coteaching pairs, the individual interview was conducted before the observation with the joint interview occurring after the classroom observation. In one case, a joint interview was not possible at all. Despite these difficulties, I felt the data gathered from each coteaching pair were rich and allowed me to probe my research questions. Table 2 summarizes the sequence of the semi-structured interviews and the classroom observation for each participant pair as well as the duration of each data collection component.

Table 2

Sequence of Interviews and Observations

Participants	Data Collection Method	Length of Time (in minutes)
Karen & Wendy	Joint Interview	32:35
Karen & Wendy	Observation	45:00
Karen	Individual Interview	40:32
Wendy	Individual Interview	43:33
Heidi & Ed	Joint Interview	42:54
Heidi & Ed	Observation	45:00
Heidi	Individual Interview	43:06
Ed	Individual Interview	42:36
Beth	Individual Interview 1	39:18
Tina	Individual Interview 1	27:28
Beth & Tina	Observation	42:00
Beth	Individual Interview 2	41:36
Tina	Individual Interview 2	37:38
Tina	Individual Interview 3	42:38
Dan	Individual Interview	30:02
Dan & Tina	Observation	47:00
Dan & Tina	Joint Interview	34:12
Mark & Lisa	Joint Interview	41:23
Mark & Lisa	Observation	45:00
Mark	Individual Interview	50:12
Lisa	Individual Interview	73:36
Deanna & Fred	Joint Interview	50:24
Deanna & Fred	Observation	90:00
Deanna	Individual Interview	47:26
Fred	Individual Interview	41:57
Rachel	Individual Interview	39:09
Steve	Individual Interview	53:56
Steve & Rachel	Observation	90:00
Steve & Rachel	Joint Interview	39:08

For four of the coteaching pairs, I conducted the first interview with both members of the coteaching pair, observed the pair teaching, and followed-up with a second individual interview of each teacher in the pair. For two of the coteaching pairs, I conducted the individual interview first, observed the pair teaching, and then followed-up with a joint interview. For one pair, Steve and Rachel, the individual interview came first because Steve was absent on the day of our scheduled joint interview. Rather than not use the designated time, I decided to conduct the individual interview with Rachel. I interviewed Steve individually before the scheduled classroom observation and conducted the joint interview after the observation. Both members of this coteaching pair were in agreement with this decision. The coteaching pair of Dan and Tina did not have a common free period to complete the joint interview before the observation; after the observation, Tina gave up her free period to complete the joint interview. Finally, no joint interview was conducted with Beth and Tina. Conflicts in the two teachers' schedules prevented us in finding a time to meet together. However, I did interview each teacher individually before and after the observation.

All of the interviews and observations for each coteaching pair were conducted within a two-week timeframe. The compact timeframe was less of an imposition on the teachers. I reviewed the data after the first interview(s) and my classroom observation notes, to inform the second semi-structured interview(s). For the first two coteaching pairs, Karen and Wendy, and Heidi and Ed, the data collection period overlapped. For the subsequent participant pairs, the data collection components did not overlap with other participant pairs, facilitating ongoing analysis. The iterative practice of collecting data, reviewing the recorded interview, observing the coteachers in the classroom, reviewing my observation notes, collecting more data through a second interview, reviewing the recording from the second interview and then moving to a new

pair of coteachers supported the analysis of the data, as described later. An explanation of each of the steps in the data collection and analysis process follows.

Semi-Structured Interview

I interviewed each participating teacher twice using a semi-structured protocol (Appendix D), as recommended by Bogdan and Biklen (2003) and Emerson, Fretz, and Shaw (1995). The protocol for the interview was developed based on a review of the literature on teacher beliefs and coteaching as a viable collaborative practice. I intended the protocol as a guide to elicit discussion from the participant pairs on their understanding of coteaching and their everyday teaching practice and to facilitate development of a rapport between myself and the participants. I did not read through each of the questions in a question-answer format but rather attempted to use the protocol as a point of reference to continue the flow of conversation.

As part of the first interview, I asked permission to observe one cotaught instructional period. Although the participants knew I wanted to observe in the classroom when they agreed to take part in the study, I wanted to give the teachers the option of opting out at any time. Throughout each teacher's participation, their agreement to allow me to observe in their classroom was upheld.

Similar to the function of the protocol for the first interview, the protocol for the second interview (Appendix E) was used as a guide for the interview, whether it was an individual or joint interview. More discussion about the second interview is in the following section. All interviews were digitally recorded and transcribed. The shortest interview was the individual interview with Tina where she discussed her partnership with Beth. (Tina also participated in this study with one of her other coteachers, Dan.) This interview lasted a little over 27 minutes. The longest interview was with Lisa, nearly 74 minutes. In total, 15 hours, 40 minutes of interviews

were recorded from all of the interviews, constituting 398 pages of transcribed text.

Observation and Second Interview

After the first interviews, I observed the coteaching pairs in their classrooms for one instructional period. The Treehaven School District has 42-minute instructional periods; the Panoramic School District has 84-minute instructional periods. During the classroom observation, I used an observer guide (Appendix F) to focus my data collection and take notes. The use of an observer guide, as described by Bogdan and Biklen (2003) and Hatch (2002), assisted me in gathering comparable data across multiple classrooms and gave a point of reference to be mindful of the research questions guiding this study. In developing the observer guide, I considered the work of Wilson (2005) and Salend (2008), as well as the research questions for this study, to focus on teacher behaviors, actions, and language. My level of involvement in the classroom was minimal, with little disruption to the students and coteachers.

Observations took place after the first interview and before the second interview. I reviewed my raw observation notes within 24 hours of the observation and filled in any gaps (Bogdan & Biklen, 2002; Hatch, 2002). Overall, I observed in classrooms for nearly seven hours; the field notes constitute 47 pages of text. The longest observations were with Deanna and Fred, and Rachel and Steve, for 90 minutes each (three minutes before and after the 84 minute instructional period); both classrooms are at Mountainview Middle School. These observations were longer primarily because the instructional period is longer at this school than those in the Treehaven School District. My intention was to analyze my observations to develop a descriptive representation of the coteaching practices the coteaching pair discussed in the interviews and adjust the protocol for the second interview according to any additional areas I wanted to discuss with the participant(s). In carrying out this study, however, I found that it was

more pragmatic to note additional queries on my field notes rather than change the protocol (Appendix E) for each interview, while continuing to use the protocol for guidance in maintaining focus during the interviews.

Additionally, for three participant pairs (Tina and Dan, Mark and Lisa, and Rachel and Steve), the timing of the interviews and observation did not allow for a thorough analysis of the data from the interview and/or the observation before the second interview. For Dan and Tina, I conducted Dan's individual interview during the instructional period before my observation. Similarly, on the same day that I observed Rachel and Steve, I conducted Steve's individual interview during the instructional period before my observation. Immediately after observing Mark and Lisa, I conducted Mark's individual interview.

I again refer the reader to Table 2 for a summary of the sequence of the semi-structured interviews and the classroom observation for each participant pair as well as the duration of each data collection component. For all participant pairs, the second interview, whether joint or individual, allowed me to discuss the coteaching practices more in depth. In gathering the data this way, a richer understanding of the relationship between the participants' beliefs about coteaching and their practice of coteaching was possible.

Procedure for Data Analysis

As described previously, symbolic interactionism is a theoretical perspective asserting that no event or object has meaning in and of itself. Meaning comes from our relationships and reactions to other human beings and our simultaneous dealings with objects, situations, events, and things that are present. Therefore, meaning can change based on context. This theoretical perspective led me to use qualitative data collection methods (i.e., interviews and observations) to understand how the participant pairs made meaning out of their coteaching partnership and

practices. The unit of analysis for this study was the coteaching pair.

Grounded theory was the process I used to analyze the data I gathered. This is an inductive approach in data analysis described by Corbin and Strauss (2008) and was particularly appropriate for this study since the goal was to develop connections among the emergent themes in the data and build theory rather than apply existing theory to the data I collected. As I describe in more detail below, I started with the data I gathered, expanded and compressed coding categories, derived generalizations, themes, and an emergent theory. The analysis was rigorous in that I frequently re-read, reviewed, and reconsidered my data using procedures recommended by Corbin and Strauss. They recommend a number of procedures for coding and memoing in order to develop analytic categories from the data. I used Nvivo 7, a qualitative software program, to assist in organizing, tracking, and combining the codes and themes that I identified. My objective was to use the descriptions derived from this analysis to develop a deeper understanding about coteaching and connect concepts that will guide the practice of future coteachers.

More specifically, my procedures for data analysis included the following steps.

1. As described previously, in so far as was possible, I reviewed the data even as I continued to gather new data from each participant pair. I did this review by reading through the field notes after each interview and classroom observation and listening to the recorded interviews, making notations to refine my interview questions and observations. In so doing, my preliminary data analysis influenced subsequent data collection both within the pair and for future coteaching pairs. This circular relationship between data collection and analysis aligns well with a grounded theory approach wherein data analysis informs subsequent data collection.

The following example illustrates the circular relationship between data collection and analysis to inform my future actions. In the joint interview with one participant pair, Heidi and Ed, coteachers in Math 8, we discussed the accommodations used in their class. Heidi, the general educator of the pair, indicated that Ed, the special educator of the pair, provides accommodations for the students during the lesson as needed. I made note of this on the protocol I used to take field notes during my observation of their coteaching. While observing this participant pair coteaching, I saw Ed distribute calculators to every student in the class. During the individual interview with Ed, I asked about his distribution of the calculators to all of the students. He indicated that everyone gets the calculator although in actuality it seemed to him that only those students who really needed to use the calculator used it during instruction. Furthermore, Ed asserted that his practice did not draw attention to those students who needed the support of the calculator. I also asked Heidi about the use of accommodations during my individual interview with her; she verified Ed's approach in distributing calculators to all students as being typical of providing accommodations for students with disabilities in the class. In subsequent interviews and observations of the other participant pairs, I asked and noted instances of selection and distribution of instructional materials that can support students with disabilities in the classroom. This example demonstrates the circular process of data collection and analysis that I engaged in.

2. At the completion of data collection from all of the participant pairs, I reread the transcribed interviews and field notes for each pair a second time. This provided an opportunity to gain a deeper understanding of the contextual considerations of each

participant pair and to arrive at an overall sense of how these teachers interacted and shared instructional space and responsibilities.

3. I then began rereading the transcribed interviews and field notes for a third time with the intention of coding the data into broad categories. For the first three participant pairs, this third reading resulted in open coding of the data into broad categories. These categories were: professional development; opinions about coteaching; professional roles; and, day-to-day practices. I quickly realized these categories were too broad and I expanded coding categories as I read the transcribed interviews and field notes from the first three participant pairs for a fourth time. The list of the original coding categories and the expanded coding categories is included in Appendix G.

   Continuing with the example above from my interviews with Heidi and Ed and my observation of their coteaching, I initially coded the distribution of the calculators in the day to day practices category. As I continued reading the data from the first three participant pairs, which include Heidi and Ed, I revised how I coded Ed's action and explanation as "effect on instruction – day to day practices during cotaught instructional block." The revised coding category seemed to describe more thoroughly the data.

4. Using this expanded list of coding categories, I reread for a third time, the remaining transcribed interviews and field notes from the other four coteaching pairs and coded the data. I read the data set for each participant pair in chronological order.

5. I then analyzed the coded data to see how it aligned with my research questions. I discuss this analysis in Chapters 4 and 5 in response to research questions one, two,

and three. The coding categories were a starting point in making connections between the data to respond to the research questions. While the coding categories were not reflected equally in the data, I reviewed all of the coded data, and, as needed, the complete transcripts of the interviews and my field notes. This process of axial coding (i.e., the process of relating coding categories and concepts) aligns with grounded theory.

6. I then reviewed the excerpts from the data for each coding category. Through this reading of the coded data, connections between some of the analytic categories became more apparent to me and I was able to arrive at three overarching themes. Some of the data from a coding category was appropriate for more than one theme, thus some of the expanded coding categories are included in more than one theme. Appendix H lists the three themes, the coding categories that comprised each theme, and illustrative excerpts from the participants for each theme. By using selective coding in such a way, I was able to further refine and develop an emerging theory of coteaching in secondary schools.

After this process of coding and multiple readings, the three themes that were generated from my analysis are: 1) contextual matters, such as administrative support, structure of the school day and teacher schedules, influence coteaching; 2) negotiation of roles within the coteaching pair and in the school building influence coteaching; and, 3) personal principles guiding teaching influence coteaching. The example about Heidi and Ed discussed above demonstrates the process of selective coding I engaged in. Further analysis of their words and actions regarding the distribution of the calculators contributed to my understanding of the phenomenon of coteaching and prompted me to see the connection among several pieces of data

leading to the second theme: the negotiation of roles within the coteaching pair and in the school building influence coteaching.

Thus, as I reviewed the data included in each of the three themes, I was able to see a progression in my understanding of the data. The three themes explain the data in a way that leads to a deeper understanding of how the participant pairs interpret and enact coteaching in their given context leading to an emergent theory of coteaching at the secondary level. Chapter 6 is a discussion of this emergent theory and my final analysis of the data from this study, which I used to respond to research question four.

The design of this qualitative study, the careful data collection procedures, and systematic analyses of the data provide a level of trustworthiness to this study. Trustworthiness is an important consideration for all researchers, including qualitative researchers who must respond to issues of credibility, transferability, dependability, and confirmability in their work (Shenton, 2004). Credibility, a key component in promoting confidence that a study describes the phenomenon the researcher purports is being interrogated, can be ensured in a number of ways. For this study, credibility is supported by using well-established research methods; promoting the honesty of the participants through confidentiality of interview transcripts and informed consent; reporting the background of the researcher; providing thick descriptions of the practices of the participant pairs coteaching in secondary schools; and reviewing the current literature in coteaching. Transferability allows the reader to consider the findings in other contexts. Although this study is relatively small, the findings are transferable and may lead to deeper understandings in other contexts because the data and observations were conducted in four school buildings with coteachers representing multiple grade levels and content areas. I have attempted to report this study in a dependable way so that a thorough understanding of the methods and their

effectiveness can be achieved. Finally, the confirmability of my analyses rests in my extensive use of the participants' words and my recounting of their actions during my observations, both of which support the findings. By carefully reading and re-reading the data, I tried to verify the participants' statements against their previous remarks and the actions I observed in the cotaught class. I attempted to separate myself from seeing the classrooms only through my lens and, to the best of my ability, report the data objectively. While every researcher has subjectivities that may influence her/his study, as discussed in the following section of this chapter, and every study has limitations, as discussed in the final chapter of this document, the reporting of these components adds to the confirmability of the findings. Thus, the trustworthiness of this study is substantiated by careful consideration of strategies that lead to the credibility, transferability, dependability, and confirmability of the findings.

Subjectivities Statement

One of the concerns of qualitative research is the notion of researcher subjectivity, which may bias the study. Certainly, every qualitative researcher has biases when beginning a study; however, it is through rigorous and careful data analysis that qualitative studies can generate less-biased theory, descriptions, and understandings of a phenomenon. As Bogdan and Biklen (2003) note, however, the researcher should try to limit, but not eliminate, his/her personal bias. I heeded this advice by acknowledging my background in special education to my participants as well as being mindful of this bias in reviewing the collected data.

As a special educator with many years of teaching experience, I have an understanding of the complexities of teaching in high schools. I believe that all children, regardless of their learning characteristics and special educational needs, deserve a meaningful education that helps them reach their potential. I know firsthand how challenging this can be and that it is often left to

special educators to advocate for children with disabilities to have access to the general education curriculum. I believe coteaching has the potential to lessen the need for educators to have to negotiate for this access. This led to my desire to engage in this study; however, I needed to be cautious of how my personal belief in the potential benefits of coteaching might influence my conduct during the study from design to data collection and analysis.

I tried to use my knowledge of secondary classrooms to better understand what the participants said and what I observed in their classrooms. My own experiences as a teacher allowed me to empathize with the participants and, in doing so, gain a better understanding of their beliefs about coteaching and how they enacted these beliefs in their teaching practice. I place great value in the reflective nature of teaching and trust that teachers are thoughtful about their pedagogy. This may or may not be the case and attributing an action as directly related to a teacher's beliefs about teaching, specifically educating students with special educational needs, could be erroneous. I have tried to ameliorate any such ill effects by rigorously reviewing the three sources of data whenever possible -- the individual interview, the classroom observation, and the joint interview -- to substantiate my inferences.

My experiences as a secondary special educator have also given me insight into the roles general and special educators frequently assume in a collaborative relationship. Oftentimes the general education teacher is the content specialist and the special educator is the specialist on the learner characteristics of students with disabilities. Although I have thoroughly discussed these roles from the perspective of the current literature base in Chapter 2, when I was conducting the study and doing the data analysis, it was important for me to recognize that in my professional career, I experienced the apparent assumption that general education colleagues often felt that I, as the special educator, did not know the content as thoroughly as they did. While in fact this

may have been true, I resented the assumption and the lack of support to broaden my understanding of the content area. I think a truly collaborative relationship, such as coteaching, has the potential to meet the needs of diverse learners while strengthening the content and pedagogical knowledge of both professionals. This belief may have influenced and skewed my interpretation and responses to the participants in this study. For example, Beth described in her individual interview the difficulty she was having in "loosening the reins" to allow Tina, her coteaching partner, to share some of the whole group instruction. Initially, I queried Beth about Tina's understanding of the content. Beth clarified that the real issue was the lack of planning time for these two teachers, the restrictive timeframe to cover the necessary material in the course, and the pressure of accountability measures such as the Annual Professional Performance Review (APPR). It was not that Beth did not feel Tina was capable or incapable of teaching the material, it was that there was no time for Beth and Tina to explore this, resulting in Beth doing all of the whole group instruction and Tina supporting learners at their desks. Beth's response helped me to better understand the responsibility the general education teachers have in covering the required material in a comprehensible and efficient manner while documenting teacher proficiency, as well as helping me to see a bias I had in how the roles of each teacher may be shaped by outside influences.

As a special educator, I had a tendency to relate to the special educators more readily. When I introduced myself to the participant pairs, I did so from the position of graduate researcher; however, to establish credibility with the participants I always included my experience as a special educator in the introduction. By doing so, I may have unknowingly created a perceived bond with the special educator in the pair, skewing some of the participants' responses to my queries. For example, when I interviewed Lisa, one of the special educators in

the coteaching pair from Willow Middle School, she frequently used the phrase "you know what I mean." This pattern was noted in reviewing the individual interview transcripts of all of the participants; the special educators used the phrase 'you know' more frequently than the general educators. Without placing too much emphasis on a frequency of using this phrase, it does seem to indicate an assumed shared understanding of the role of a special educator. Although I may have been inclined to understand the intention of the interviewee, I followed-up the use of this phrase with queries to give more detailed information to be sure the meaning was clear.

Another noteworthy factor in my subjectivity in this study is the fact that my children attended Mountainview Middle School a few years ago. Although my children did not have any of the participating teachers as an instructor, one participant recognized my name as being related to a district student. There was minimal discussion about my child and I do not think it adversely influenced the data. I mention this because I was more familiar with this school than the other schools my participants taught at. Because of this familiarity, I may have asked fewer clarifying questions regarding the school and the structure of the instructional day. Nonetheless, the data regarding these aspects of the coteachers' working day are accurate to the best of my knowledge for all of the coteachers involved in this study.

Chapter Summary

This chapter provides a description of the design of this qualitative study on coteaching in secondary schools that was conducted in two large suburban districts with seven coteaching pairs, in grades 7 through 10. Data for this study were gathered using semi-structured interviews and observations of the coteachers. This chapter, along with Chapters 1 and 2, provide the basis for understanding the findings of this study, as discussed in subsequent chapters.

The data analyses are reported in Chapters 4, 5, and 6. In Chapter 4, I offer an analysis of the coteaching models I noted during my observations of the participants and the participants' discussion of the models they used. In Chapter 5, I discuss the participants' understanding of their coteaching practices and the challenges they reported while implementing coteaching. In Chapter 6, I provide a discussion of the overarching themes generated during my final analysis of the data leading to a deeper understanding of coteaching in secondary schools. In Chapter 7, the final chapter of this dissertation, I summarize the findings of the data analyses, discuss the implications for practice, the limitations of this study, and suggest areas of further research.

Chapter 4 – Use of Coteaching Models

Given the need for more studies on coteaching at the secondary level, the purpose of this study was to examine the practices of special and general educators coteaching in middle and high schools. The definition of coteaching used for this study was one general and one special education teacher sharing instructional responsibilities for at least one group of students in one classroom for at least one instructional period. In particular, I studied the models of coteaching used by the participant pairs, the participants' understandings of their coteaching practice, some of the challenges the participants reported in sustaining coteaching as a way to support the needs of students with disabilities in the general education classroom, and the issues the participants cite as influencing their coteaching practice.

In my analysis, I report the coteaching pairs by name, consistently using the general education teacher's name first. I chose this format to allow the reader to understand the role of the teachers in the participant pairs while reading my analysis. This format is also consistent with the way the teachers are listed on the report card, as reported by Rachel from the Panoramic School District (Rachel, Individual Interview) and Ed from the Treehaven School District (Ed, Individual Interview). In this chapter, I focus on the first research question for this study:

What models of coteaching are employed by pairs of general and special education coteachers at the secondary level?

Participants' Use of Coteaching Models

Research question one explores the models of coteaching employed by the participant pairs in this study. My analysis of the data began by closely examining the coded excerpts created during the initial stages of data analysis. These coded excerpts were a starting point for me to identify connections and patterns in the data to respond to the research questions guiding

this study. Oftentimes, the coded excerpts prompted me to return to the interview transcripts and observation field notes for a more complete understanding of the coteaching experiences of my participants. In reviewing the data to answer this question, I paid particular attention to the coding categories titled "Role of Teacher," "Co-planning Daily Lessons," and "Effects on Instruction – Practices during Cotaught Instructional Block," and "Effects on Teaching – Influences in all Classes."

In reviewing the data coded in these categories, I began to notice patterns in how the coteachers enacted and described their coteaching practices. Therefore, starting with the first participant pair, Heidi and Ed, a picture of coteaching practices in secondary schools began to emerge. This picture of coteaching became more refined and nuanced as I reviewed the data from the interviews and observation of subsequent participant pairs. The descriptions the coteachers offered during the interviews were about the instructional role each partner took on during the cotaught class. My observations confirmed and expanded my understanding of the participants' words. While I did note similarities in the data, not every participant pair described their coteaching in the same way as other pairs, which provided an opportunity to consider subtle variations in the ways the participant pairs enacted coteaching practices.

The discourse on coteaching in the current literature often suggests techniques and strategies to best utilize the expertise of two professionals sharing instructional responsibilities. Frequently, these techniques lead to a discussion of the six coteaching models, as discussed by Friend and Cook (2010), Friend et al (2010), and Ploessl et al. (2010). Over time, these models have become the common vernacular when discussing coteaching. Therefore, in keeping with current practices, I have used the recognized terminology of the coteaching models (one teach – one assist, station teaching, parallel teaching, alternative teaching, teaming, and one teach – one

observe) to make sense of the data from this study. However, through analysis of the data, I offer

a more complex consideration of the coteaching models. This chapter is a discussion of my

analysis, which is grounded in the actual words and actions of the participants compared with the

commonly recognized descriptions of coteaching models used in the current literature. I

conclude this chapter discussing the relationship between the participant pairs' use of particular

coteaching models and the number of years the participant pairs cotaught together.

The following discussion refers to five of the six coteaching models: one teach – one

assist, one teach – one observe, alternative teaching, station teaching, and teaming. None of the

participants in this study indicated that they used the sixth coteaching model, parallel teaching.

One teach – one assist. Four of the seven participant pairs (Heidi and Ed, Karen and

Wendy, Beth and Tina, and Mark and Lisa) described their coteaching practice as one teacher

taking the lead on instruction as the other teacher assisted the students during the lesson. Both

partners in these four pairs consistently described their coteaching in such a way, in both

individual and joint interviews, and did not mention the regular use of any other coteaching

model. It is worth noting that none of the participants in these pairs used a specific phrase to

describe their practice, such as one teach – one assist, although Wendy did refer to a professional

development workshop where she saw diagrams of the various coteaching models (Wendy,

Individual Interview). My observations of three of these coteaching pairs corroborates their

statements as I noted in observing Karen and Wendy, Heidi and Ed, and Beth and Tina, that one

teacher led the class through a series of instructional tasks while the other teacher circulated

around the students' desks supporting learners as needed. In each case, the general education

teacher was the lead instructor and the special educator assisted. As Karen states, "That's pretty

typical for Wendy. I don't know if it's because of being from the special ed. mode, but she does

tend to kind of take a back seat a lot of the time" (Karen, Individual Interview). Tina, the special

educator on the team who coteaches with Beth in Integrated Algebra, describes her role as

"…more of a behind the scenes..." (Tina, Individual Interview 1). I observed her moving among

the students' desks checking homework completion and supporting all learners during group and

independent work time. Conversely, I noted in my observation of Mark and Lisa teaching a 10th

grade Living Environment class that Lisa remained seated next to a student for most of the class

period as Mark led the whole class discussion in Biology. I discuss their coteaching practice

more in depth later in this section.

The coteaching described and enacted by these paricpant pairs is similar to the one teach

– one assist model of coteaching described in the literature. Fontana (2005) and Scruggs,

Mastropieri, and McDuffie (2007) report that the one teach – one assist model of coteaching is

the most common method of coteaching; this is true of the participants in this study as four of the

seven participant pairs demonstrated the one teach – one assist model. Friend and Cook (2010)

describe the one teach – one assist model as a "relatively simple approach to coteaching… [that]

requires little joint planning" (p. 120). Friend and Cook, as well as Pugach and Winn (2011),

assert that this model of coteaching denies an active teaching role to the special educator and

undermines his or her credibility. Ed, a special educator coteaching with Heidi, had a different

perspective. He stressed that while his coteaching partner is leading instruction, he is actively

engaged in making professional decisions based on his expertise in adapting instruction for those

students in the class who may need support:

> As far as that [observed] lesson and most lessons, pretty much Heidi does the initial
>
> presentation. I tend to be thinking of my own kids and in my own mind, if there's

anything that I think she left out and how I might be able to say politely [something] different to help them understand. (Ed, Individual Interview)

The notion of the special educator inserting or using clarifying language is affirmed by the description offered by Mark, a Living Environment teacher, paired with Lisa, a special educator. As Mark states,

I think when she [Lisa] sees me maybe not making the connections that I might make to another class, or I need to go a step back, that's usually when she'll interject or give them [the students] a better real world example or something. Since she sees many of these kids in social studies or English or math, she can use some of those key terms that I'm not using since I'm not in those classes. (Mark, Individual Interview)

My observation of Mark and Lisa provide an example of what Mark meant. During the lesson, Mark asked the students to define "homozygous," a word he wrote on the whiteboard. When no students responded to Mark's query, Lisa stood up and drew a slash between the prefix, homo-, and the root word, -zygous, asking the students "What does homo- mean?" After about two seconds, no student responded but the teaching assistant offered a definition of the prefix. Lisa chuckled, repeated the definition, and continued to analyze the word, prompting the students to discover the meaning of the word homozygous. Mark then wrote the word heterozygous on the whiteboard, replicated the word analysis process that Lisa performed a few minutes earlier, which yielded a student offering the correct definition of the word. Mark seemingly agreed with the teaching strategy Lisa modeled and adopted it in his own practice. This excerpt from the observation also exemplifies the distinctive roles of the adults in the classroom. Clearly, Mark and Lisa are the instructors of this class and the teaching assistant supports the instructors. Both

Ed and Mark's words and my observations illustrate that the one teach – one assist model of coteaching does not necessarily suggest a passive role for either teacher.

Another factor discussed by researchers when discussing the one teach – one assist model of coteaching is the number of years the coteachers have worked together. One teach – one assist is often the model of coteaching used by partners in the beginning stage of coteaching (Gately, 2005) or novice coteachers (Pugach & Winn, 2011). For the four coteaching pairs described as utilizing the one teach – one assist model, the years of their coteaching partnership range from one (Beth and Tina) to four (Heidi and Ed). This seems to align with the current research; however, other participant pairs in this study who taught for a similar number of years (i.e., Deanna and Fred and Steve and Rachel) did not rely on the one teach – one assist model of coteaching.

Therefore, it seems that the model of one teach – one assist, although portrayed as a rudimentary model of coteaching, can be thought of as practices on a continuum of active and passive engagement by the non-lead teacher. This continuum ranges from a less interactive role, such as the case in my observation and interviews with Karen and Wendy, and Beth and Tina, to a more engaged role as seen in Heidi and Ed's practices, to a role that leads to changes in teaching practices, as evidenced by data from Mark and Lisa.

One teach – one observe. Dan and Tina, coteachers in a ninth grade Earth Science class, enacted coteaching in a different way. Analysis of my observation of their coteaching led to another description of coteaching. Drawing on my field notes and interview data, I explore this interpretation in the following paragraphs.

While observing Dan and Tina, I noted that Dan, the general education teacher, was the lead instructor from the very beginning of the 42-minute instructional period. As the students entered the room and sat at individual student desks, Tina sat near the back of the room at a lab table. Although she was usually in the back of the room, she appeared attentive to the students as they entered the classroom. For example, she approached two different students to help them get their notebook and Earth Science review book out of their backpack and onto their desktop, returning to the lab table each time. Dan began the lesson by previewing for the students the tasks for this class period (a short review lesson on using seismic wave data, a laboratory exercise on seismic waves, and review of the quiz from the previous day), while Tina remained at the lab table. He then promptly began the mini-lesson on how to use seismic wave data and a compass to determine the epicenter of an earthquake and the distance radius measured by each seismometer station in the data set.

A student entered the classroom eight minutes after the class period began. He gave Dan a hall pass and took his seat at his desk. At this point, Tina stood up and assisted the student in getting his materials out of his backpack. Tina left the room and returned six minutes later with an enlarged copy of the laboratory exercise which she promptly gave to the student; Tina then returned to the lab table. Presumably, this student had a visual impairment; however, because of confidentiality of student data, I was not certain of this nor did I know the identity of any of the students with identified disabilities. During my post-observation interview, Tina remarked that she typically has the enlarged materials prepared for the student in advance and simply overlooked making these copies for this class period; Dan concurred that Tina typically makes these copies in advance. When Tina was out of the room making the enlarged copy, Dan did not make note of her absence to the class and continued with his review lesson. From my vantage

point, all of the students and Tina, when she returned, were attentive to the review lesson and sat quietly observing Dan.

Nearly 20 minutes after the instructional period began, Dan distributed a compass to each student and assigned students to a group to complete the laboratory exercise. Interestingly, I noted that no accommodations were apparent for the student in the classroom who received the enlarged copy of the laboratory exercise. As Dan was calling out names for students in each group without referring to a predetermined list, I observed that he made eye contact with Tina and she subtly nodded in agreement; since Dan assigned students to a group, it did not appear that membership in any one group is constant. Each of the 21 students in the class was assigned to a group, resulting in three groups of four students and three groups of three students. In their groups, the students moved to the back of the classroom, sat at one of the lab tables and began the lab exercise, without comment about group membership. Dan remained in the front of the classroom checking each student's review book for completion of a homework assignment in that book.

Tina immediately began circulating among the lab tables; she briefly assisted two groups by helping them organize their materials. After about four minutes, Dan circulated among the students at the lab tables answering questions and encouraging students to stay on task. Tina then stood near one group and systematically reviewed the process for completing the lab to the three students in this group; I noted that the student who entered the class after the period began was not a member of this group. Tina manually demonstrated for the students how to use the reference table and compass to complete the laboratory exercise. After about three minutes, Tina directed the students to begin on their own and she walked away from this group. However, she returned frequently to support and re-explain the process for completing the task to this group.

After about 17 minutes, Dan directed the students to finish their laboratory exercise and return to their seats in the front of the classroom. The students quickly complied and Dan told the students to take out the quiz from the previous class. He then called on students to read and answer the quiz questions, reminding the students that they need to work harder on the homework assignments in order to get better grades on the quizzes. I also noted that Dan would let a student know that he was going to ask the student to respond to the next question. This expectation of a response seemed to help prepare the students, as they were able to respond appropriately to the question. While Dan was reviewing the quiz, Tina was tidying up the lab tables by collecting papers and compasses left behind by the students. At the end of the period, all students put their things back in their backpack and left the classroom.

After the instructional period ended, Dan, Tina and I remained in the classroom to complete our joint interview. One of the topics we discussed was that I noted Tina observing Dan teaching and then re-teaching the content to small groups. I commented that I observed Tina working closely with one group of students; in fact, she was with them for about 12 minutes out of the 17 total minutes the students had to work on the laboratory exercise. Her interactions with this group focused on breaking the laboratory exercise into smaller steps and rewording the information and directions that Dan gave during the review lesson. Neither teacher seemed surprised by this. Dan commented that Tina will "…do what needs to be done to get the kids that have more learning problems through the work. She's very good at helping them without enabling them…We make them work…" (Dan, Joint Interview). Later in the interview, Dan and Tina added:

Tina: When he [Dan] introduced how to do this lab yesterday, oh my God, it was like fireworks were going off. It was…I mean all three of them [referring to students with

disabilities but not all three of them were in the group that I observed] were doing this

thing…

Dan: …one kid starts blinking and one kid starts rocking…

Carol: And so you [Dan] are in the front of the room and you let that go and Tina will be

the one to address it later on in a small group?

Dan: Yeah, like today. Or she'll [Tina] tell me later that day or the next day so I'll go

back over [the content] because I don't know they didn't get it….where if she wasn't here

I wouldn't even realize. I would just move on. (Dan and Tina, Joint Interview)

This explanation seems to support the notion that for this coteaching pair, Tina's observation of

student responses informs future instruction in this class. Dan appears to value Tina's expertise

in monitoring the students and trusts her feedback to change or adapt his subsequent teaching.

Dan and Tina's coteaching practice for this observed instructional period is reminiscent

of the one teach – one assist coteaching model described in the literature. However, the words

and actions of this participant pair indicate that one teach – one assist model of coteaching may

be a more active and informative role than is typically described in the literature. Friend and

Cook (2010) define this model as one teacher leading large group instruction while the other

teacher gathers data on academic, behavioral, or social behaviors of specific students or the

whole class. The analysis of the data from this participant pair indicates that Tina, the observing

teacher, is collecting data that can be used to inform the instructional practices at a later time or

even within that lesson. The one teach – one observe model influences the teaching practices and

in fact, makes the instruction during this period specialized and different from other periods that

Dan teaches without Tina. The one teach – one observe model does not mean the "observer's"

role is simple or passive. As Dan says, "Oh yea, she absolutely keeps me straight. It's like you gotta do this. So, ok, then I do it. I know she knows what she's talking about" (Dan, Individual Interview).

Interpreting this instance of Dan and Tina's coteaching as one teach – one observe is a variation of how this coteaching model is frequently described in the literature. However, as I explain in the following section, Tina's supportive role and observations of students during Dan's whole group instruction led to her modifying the instruction for a small group of students.

Alternative teaching. In some ways, Tina's re-engagement with the students is reminiscent of alternative teaching, another model of coteaching. In alternative teaching, one teacher provides highly intensive instruction to a small group of students within the general education classroom while the other teacher is teaching the remaining students. Oftentimes, alternative teaching is used for the entire instructional period. Tina's approach to breaking the instructional content into smaller, more manageable steps to support student learning of grade level content after instruction is a response to observing the whole group lesson. Her re-teaching of the content differs from the one teach – one assist model because she did not assist the students in understanding the content while Dan was teaching the whole group as is typically done in the one teach – one assist model; she chose to re-engage the students at a separate point during the instructional period.

It seemed the students were heterogeneously grouped, including the group that Tina retaught. Although I was not aware of which students in the classroom were identified as having a disability, I noted in my observation that one of the female students was supporting the completion of the lab exercise by systematically explaining the process to solve the problem to her partners who seemed less able to complete the lab. This leads me to believe that the groups

were heterogeneous and students were not grouped according to similar ability/disability groups Therefore, Tina working with a small group also illustrates that inclusive coteaching potentially serves at-risk learners in addition to students with disabilities. This is a different way to consider the benefits of the one teach – one observe model as well as a different characterization of the alternative teaching model

Station teaching. Deanna and Fred, coteachers for a ninth grade French class, demonstrated a different approach to coteaching. During my observation of the 84-minute instructional period, I noted that whole group instruction was carried out at the beginning of class and then the teachers transitioned the students into small groups for direct instruction by one of the two coteachers or independent learning tasks. Deanna, the general education teacher, began the class by announcing the agenda, in French, as she pointed to it written in English on the front whiteboard. Immediately when she finished, Fred directed the students to take out their unit workbook. Last night's homework was to complete one page in the workbook. The workbook, used in this class in place of a textbook, covers the content for one unit of instruction and is a bound packet of nearly 50 pages. Deanna described the need for the workbook "because I didn't like the format of the textbook, especially for my classes. So, I manipulated a lot of it and put it into my own book" (Deanna, Individual Interview). The workbook provides more visual supports for the students by pairing vocabulary words with pictures, as well as organized charts of verb conjugations and prompts for student responses. Deanna reported that when she creates the workbook, she:

> …think[s] about my students with disabilities and needs and I go from there. That has
>
> made me really rethink my organization and talking with [Fred] about those students and
>
> better ways to organize my workbooks like the vocabulary words, grouping them into

smaller chunks and presenting [the content] in a certain way…and then the book is

differentiated into different groups and categories from the more basic students to the

average students to the more advanced student…some students are assigned additional

work in the workbook. I want to make sure that all the students can hit that basic level

and then from there on, it's icing on the cake. (Deanna, Individual Interview)

Also contained in the workbook are directions for the unit project. For this unit, the project was

for each student to prepare a narrated PowerPoint slide presentation introducing themselves to a

family in Spain. The back cover of the workbook is a calendar where Fred marked the homework

grade, as described below.

As the class continued, Deanna proceeded to review the homework while Fred walked to

each student's desk where he picked up the workbook, reviewed the student's work, put a letter

grade at the top of the page and marked a calendar on the back cover of the workbook indicating

the homework grade. After returning the workbook to the student, he walked over to the

computer in the back of the room and entered the student's grade into a spreadsheet. Fred did this

unobtrusively for each of the 23 students in the class. The students and teachers seemed familiar

with this process and remained attentive as Deanna reviewed the work while standing in the front

of the room. This continued for ten minutes after which Deanna began a review of the imperfect

verb tense of words written in French on the interactive whiteboard; these were different words

than the vocabulary previously reviewed. She spoke in English and the students provided choral

responses in English. Fred contributed to the choral responses as he walked along and jiggled the

mouse on each of the 12 computers along the sidewall.

After nearly six minutes, Deanna gave directions to the whole class on the learning task

at each of the four stations around the classroom. One group played a review game using the

interactive whiteboard and completed a vocabulary matching prompt in the workbook; one group

worked independently at the computers to record narration for the PowerPoint slides each

student prepared in a previous class; one group worked with Fred at the back tables on writing

paragraphs in French; one group worked with Deanna on oral communication skills. Fred called

three students to the back table to work on writing under his guidance as Deanna referenced a list

of names on her desk to assign four or five students to a group to begin at a learning station. I

later learned from Fred that these students were absent the previous day and needed directions to

complete the work from the previous day. Fred mentioned during his individual interview that

using station teaching allows students to get caught up on work or work longer on learning tasks,

as needed. All of the students in the class quickly moved to their designated station. Most of the

students rotated to each learning station, as directed by Deanna. The time at each station varied,

starting with 23 minutes at the first assigned station to only 7 minutes at the last station before

class dismissal. As described below, some students remained at the writing station with Fred for

more than one group rotation.

For the most part, after each rotation, the students began the task with little teacher

support. The exception to this was the oral communication group; this group waited for Deanna

before beginning as she gave the group the conversation starter in French and encouraged each

student to engage in the conversation. When the students were waiting for her to join the group, I

noted that they chatted among themselves in English about topics unrelated to the unit. Deanna's

delayed or interrupted attention to this group was because she was interacting with students at

other learning stations. These interactions were to redirect a student, answer a student question,

or confer with Fred about student needs.

On-task student behavior is crucial to the success of learning stations. It allows for efficient use of time and for the teachers to lead instruction at particular learning stations with minimal interruptions. The tasks at each station require planning and coherence (Hunt, 2010). This seems particularly important for Deanna and Fred's class as two of the learning stations were not supervised by a teacher. Although during this observation Deanna redirected students more often than Fred, both commented during their individual interviews that they equally share in the classroom management responsibilities, including interceding during the other's group as needed: "…that was established at the beginning…don't feel offended if I see someone that you don't see doing something and I'm going to talk to them. [Fred] said the same thing to me" (Deanna, Individual Interview). On one occasion during the observed lesson, Deanna redirected two students by asking them to move back to their desks away from the interactive whiteboard learning station they were assigned and to work independently in their workbook. After about three minutes, Deanna approached the students separately to check on their progress in completing the workbook; at the next rotation of the groups, these students joined their peers. Similarly, over the course of the period, Fred checked in on one student repeatedly to monitor his progress: "I know you can do it"; "Nice words"; "Okay, good. Can you do it just a little faster?" This student remained working in Fred's area for two group rotations apparently benefiting from the close proximity of Fred to support his written work.

At the end of the instructional period, after the students left the classroom, Deanna and Fred casually talked about the class as they tidied the classroom. During this conversation, they each remarked on the progress of certain students, recommendations they gave for students to stop in after school for additional support, and in general, the outcomes of the instructional period. In addition, Fred remarked to Deanna, "Good writing today by the kids…that was good

homework. The translation was good to get them thinking about their writing" (Classroom Observation, 2/14/12). Deanna nodded in agreement. This exchange exemplifies the coherence of the learning tasks, Deanna and Fred's reflective practice, and the successful use of coteaching in a foreign language course.

Deanna and Fred's coteaching in a ninth grade French class can be described as station teaching, a model of coteaching described by Friend and Cook (2010), because of the division of teaching responsibilities. Each teacher is responsible for instructing a specific component of the lesson to a small group of students as they rotate through a series of learning stations. Although there is limited research on the use of specific coteaching models, Moorehead and Grillo (2013) and Hunt (2010) assert that station teaching has the potential to maximize student achievement in secondary science and mathematics classes. Deanna and Fred, who coteach each instructional period throughout the school day, have settled into using the station teaching approach in their French classes. When they began coteaching three years ago, they initially tried different coteaching models, such as one teach – one assist and parallel teaching (two teachers instructing half the class using in the same content and learning tasks). However, after trying these two models of coteaching the first ten weeks of the school year, they mutually agreed learning stations would allow for smaller group sizes enabling more student use of technology and targeted instruction in literacy skills in a foreign language. The use of learning stations for this purpose aligns with Moorehead and Grillo: "Station teaching can promote the use of technology and communication while decreasing student-to-teacher ratios and allowing for more direct support and small-group instruction" (2013, p. 55-56). Since their first year of coteaching, Deanna and Fred have worked to perfect the group size, the number of stations, and the learning tasks at each station to maximize student achievement.

Teaming. Steve and Rachel, coteachers for ninth grade Global Studies, report that they also use station teaching as well as other models of coteaching. Steve and Rachel assert that the coteaching model that they use on any given day depends on the lesson content and objectives: "We do switch from model to model…So it depends on the model that you're going to do for that day in terms of instructional strategies" (Steve, Joint Interview). However, this coteaching pair identified teaming as the most frequently used model they have been using since they began coteaching three years ago. Teaming is characterized by both teachers sharing instruction of all students. The teaming model requires a level of mutual trust and commitment as well as a shared philosophy of teaching (Friend & Cook, 2010). For Steve and Rachel, confidence and respect for the unique skills each partner brings to the classroom is also an important element. Steve, the general educator of the pair, feels confident in Rachel's expertise as a strategies expert whereas he is the content specialist. As Rachel, the special educator of the pair, explains,

> [Steve] tends to introduce topics. He's very good. He's a very good storyteller and he makes good connections with the kids on that. We noticed that's a strength for him and he gets kids [attention] with that. We introduce ourselves as – he's the content specialist, I'm the strategy specialist – so when it comes to an activity or describing something or breaking it down, I usually take the lead on that. (Rachel, Individual Interview)

Rachel's words illustrate the defined roles they have established within their working relationship as well as the apparent transparency with which they explain their roles to the students. Individual roles based on expertise seems comfortable for each teacher in this coteaching pair although both readily admit to differences in their approaches. Rachel perceived this as an advantage for the students: "…some students might respond better to me, some respond better to him, so it kind of allows for a give and take where we can meet more student

needs" (Rachel, Individual Interview). As they reported, Steve's and Rachel's approaches complement each other to provide a more enriched and improved learning environment for the students, which may lead to better learning outcomes. It is significant that this pair refers to the needs of all students, not only the needs of the students receiving special education services. Their perspective appears to be an inclusive, student-centered approach that allows for specialized instruction within the context of the classroom learning tasks.

It is also important to note that the level of comfort and division of teaching tasks in the lesson did not happen by chance. Steve shared, "…probably the first year we talked more about this is what I'll do, I'll start this and you chime in at this point or I'll go over this part and then you go over that part" (Steve, Joint Interview). Rachel clarified, however, during our individual interview that this degree of detail in planning is no longer necessary:

I think [our partnership] has developed. I mean, we've kind of figured out where our strengths and weaknesses lie and who does what best. And you know, it has gotten easier to plan with him and really collaborate on the content as I've become more and more familiar with it. You know, the non-verbal cues and gestures are better. If he needs to clarify something or he wanted to say something, and I'm up talking to the students, I can just tell by looking at him that he's got something to add. (Rachel, Individual Interview)

Both Steve's and Rachel's commentaries provide insight into the complexity of teaming. It appears that teaming requires more extensive planning in the initial stages because this model of coteaching requires interactive collaboration or a fluidity in teaching actions that build off the actions and exchanges of each teacher. In my observation of Steve and Rachel coteaching, I noted that both teachers had specific portions of the lesson in which they were the lead facilitators but neither taught in isolation or without the active participation of the other. The

exchanges and transition from one teacher to the other appeared synergistic. For example, Rachel began a whole class discussion on the answers to the review questions while Steve recorded attendance on the computer. As Rachel discussed the answer to the second question, Steve asked if she wanted the map of the geographic region being discussed placed on the interactive whiteboard. Rachel nodded affirmatively, resulting in Steve going to a different computer and projecting the appropriate map. Rachel continued the class discussion without pausing and then referred to the map. Steve interjected additional commentary about the geographic significance of the area. The students seemed to shift their attention easily from one teacher to the other, even when the teachers were in various locations around the classroom.

Along with a shared understanding of the purpose of careful planning, Steve and Rachel also have a shared principle of teaching. For example, both teachers agree on the importance of creating a personal connection with every student, as I noted at the beginning of the observed 84-minute instructional period. Before the period began, Steve and Rachel place on each student's desk his or her Personal Portfolio. In this portfolio are materials needed for the lesson that day and the "Bell Sheet." The Bell Sheet contains space for students to respond in writing to three review questions from the previous lesson, a short list of personal goals for behavioral expectations, and a chart for tallying points for each class period during the instructional unit. Examples of the personal goals are "…behavior in a positive manner, performing your [learning] tasks, being in class…" (Steve, Individual Interview). As the students entered the classroom, they immediately began writing responses to the review questions Rachel posted on the interactive whiteboard. During this independent work time, the teachers stopped at students' desks, exchanged a brief greeting sometimes accompanied with a query about some personal aspect of individual students' lives (i.e., How was the game this weekend? What did you do this

weekend? Any problems with the homework?), and marked the points earned from the last class period. The awarded points were based on the students' progress towards meeting their goals. By the end of the Bell Sheet time, which lasted for approximately three minutes during the lesson that I observed, each of the 23 students in the classroom had a personal exchange with either teacher. Both teachers value this portion of the instructional period, as Steve explained:

> Carol: What I hear you saying is that at the beginning of every class period, every student has one-on-one time to talk specifically about his or her behavioral goals. Is that correct?

> Steve: Absolutely. You find out at that time who possibly is in a bad mood, who has baggage, who's having a rough day. I cannot tell you how many times that we'd see a student that might have their chin down and you know right off the bat that maybe she's having a tough day. You know what I mean? So, to me, I think it is a nice predictor to, you know, how we might handle that student that day. We make the points part of their participation grade so it's seen as important, you know, to connect with us, to stay connected. (Steve, Individual Interview)

Rachel, the special educator of the pair, echoed the importance of the Bell Sheet activity, both to review content and connect with each student.

> Yes, we always start with that because it's one thing I've noticed, especially for the kids that are designated special education, that they need repetition. So, [the Bell Sheet] allows us to repeat things we learned earlier in the year or just even something that we did in the previous lesson…they can make connections with us and understand better what we've already learned and where we're going. This is for academics and behavior. (Rachel, Individual Interview)

The teaming demonstrated by Steve and Rachel highlights key components of this coteaching model. Key features include mutual trust, shared philosophy of teaching, and respect for the unique skills each partner adds to the coteaching partnership. Additionally, this model of coteaching, as enacted by Steve and Rachel, provides opportunities for the needs of all students to be met within the structure of the lesson activities and provide specialized support for learners as necessary. Other coteaching pairs in this study also demonstrated these components in varying intensity, depending on the coteaching model in use.

Complexity of the Models

In answering research question one, which asks what models of coteaching are employed by pairs of general and special education coteachers at the secondary level, I analyzed the data and I found several similarities between the enacted practices of the participant pairs and the description of coteaching models found in the current literature. By examining my field notes, transcribed interviews, and coded data sources, I noted the use of five different coteaching models: one teach – one assist, one teach – one observe, alternative teaching, station teaching, and teaming. The six models of coteaching, first described by Hourcade, Bauwens, and Friend in 1989, and updated by Friend and Cook in 2010, offer a lens to view coteaching practices. However, the data from this study indicate that understanding the complexity of coteaching at the secondary level requires us to go beyond labeling the model in use. In fact, the coteaching model in use can fluctuate within the instructional unit, as reported by Steve and Rachel, within the lesson, as demonstrated by Heidi and Ed and Tina and Dan, and within the coteaching pair, as reported by Deanna and Fred. The experiences of the coteaching pairs in this study indicate the importance of teachers knowing a variety of coteaching models to allow them to make choices in their coteaching practices. The value in knowing the various models seems to lie in

offering options for coteachers as a way to think about their coteaching practice and to flow between the models as appropriate for the current teaching situation.

As the preceding discussion implies, all coteaching models require collaboration, although in varying degrees. For example, the one teach – one observe model appears to require less collaboration compared to some of the other models of coteaching (i.e., teaming). Nonetheless, the one teach – one observe model still has the potential to influence instructional practices and provide specialized instruction for students identified with a disability, as demonstrated by coteachers, Dan and Tina.

Given the data in this study, it is difficult to assert that a particular model of coteaching is consistently more appropriate than others, either across the board, in certain content areas, or at particular grade levels. Nor does there appear to be a hierarchy of coteaching model use depending on years of coteaching with one partner or overall years of teaching, a similar finding reported by Harbort et al. (2007). Novice pairs with less than three years of coteaching experience, such as Beth and Tina, used the one teach – one assist model. Likewise, coteachers with more than three years of coteaching experience, such as Heidi and Ed, used the same model. Overall, four coteaching pairs in this study demonstrated the one teach – one assist model. Dan and Tina were the most experienced teachers in the study with a collective total of 70 years of teaching experience. Dan, with 32 years of teaching experience, and Tina, with 38 years of teaching experience, have cotaught for seven years. They were the only participant pair that demonstrated the one teach – one observe model and a variation of the alternative teaching model of coteaching. Steve and Rachel were the least experienced teachers in the study with a collective total of 14 years of teaching experience. Steve, with ten years of teaching experience, and his partner, Rachel, with four years of teaching experience, have cotaught for three years and

were the only coteaching pair that demonstrated the teaming model of coteaching. One coteaching pair, Deanna and Fred, who have been coteaching for three years, demonstrated station teaching; Deanna has eight years of teaching experience and Fred has 29 years of teaching experience.

Stages of Coteaching

A different way of viewing coteaching may be to consider whether there are developmental stages of coteaching that each participant pair progressed through or whether other contextual factors were more central to their decisions about particular models of coteaching. Several participants, such as Deanna (general educator coteaching French with Fred), Tina (special educator coteaching Earth Science with Dan and coteaching Integrated Algebra with Beth), and Lisa (special educator coteaching Living Environment with Mark), remarked on how their coteaching practices had changed over time. These remarks led me to contemplate coteaching practices within a broader framework of developmental stages. Gately and Gately (2001) originally described three stages of coteaching – beginning, compromising, and collaborative – as a tool for coteachers to reflect on their practices and to set professional development goals.

Based on the work of Gately and Gately (2001), Gately (2005), and Tobin (2006), a sketch of each stage of coteaching emerges. The beginning stage of coteaching is characterized by some awkwardness as new roles in the coteaching partnership are negotiated, either verbally or in more subtle ways. The special educator, in particular, may appear to lack confidence at this stage as he/she becomes more familiar with the content and pedagogical practices of his/her coteaching partner. In this stage, there seems to be a defined separation in planning and

instructional presentation, with the general educator taking on the majority of responsibility in these areas.

As the partnership continues, the coteachers can progress to the compromising or transition stage (Heineman Kunkel & Giaccone, 2009). In this stage, the coteachers' communication becomes more open and there is more compromising of ideas. Their actions during instruction are more interactive, especially for the special educator; however, the general educator usually remains the lead instructor. As the partners gain more confidence in their partnership, mutual trust and respect grow and they transition to the collaborative stage of coteaching.

When and if partners reach the collaborative stage of coteaching, communication is very open, interactive and comfortable. The coteachers complement each other's instructional practices and have a high degree of trust and respect for each other. It is often difficult for an observer to distinguish between the general and special educator in the partnership as movement, presentation of content, and classroom management are synergistic.

As with other stage theories, progression through the stages is predictable. The developmental stages of coteaching rely on the partners' interpersonal relationship and communication style (Gately, 2005; Isherwood & Barger-Anderson, 2008; Tobin, 2006) and is not dependent on the number of years a teacher is in the profession or the number of years the coteaching pair have cotaught together. However, the notion of development or progression through stages implies a time element. Gately and Gately do not discuss a timeline for progression through the stages nor do they directly correlate the use of a particular coteaching model to a stage. They caution that coteaching partners will not progress to the next stage of

coteaching unless there is a clear sense of shared purpose towards collaborative practices and a willingness to engage in the process.

There may be a relationship between the stages of coteaching and the use of various coteaching models. Interpersonal relationships and open communication between the coteaching partners, aspects important in progression through the stages of coteaching, are also important factors in using various coteaching models. This connection has led me to consider developmental stages of coteaching as a way to understand the use of various coteaching models by the participants of this study, and therefore, to gain insight into the coteaching practices of the participant pairs in this study. I have used Gately and Gately's developmental stages of coteaching as a way to discuss the relationship between the use of coteaching models and the development of the participant pairs. This discussion is not intended as a definitive description of the developmental stage each coteaching pair is in but rather a way to better understand the use of coteaching models by the participant pairs.

Beginning stage of coteaching. During the beginning stage of coteaching, the coteachers' communication is typically guarded and infrequent (Gately & Gately, 2001). The interpersonal relationship is often formal or detached. At this stage, teachers may proceed more slowly as they attempt to establish their respective roles and boundaries within the coteaching relationship and classroom. Beth and Tina, who have been coteaching for one year in a ninth grade Integrated Algebra class, demonstrated communication and interpersonal skills such as these. In observing their coteaching for one instructional period, I noted that the teachers rarely shared instructional space and exchanged words only once after the lesson began when Beth asked Tina about whether she was finished checking homework. Tina, the special educator, never approached or stood in the front of the classroom directly addressing the students. In the

interviews, both teachers described the observed lesson as typical, with Beth taking on the role of lead instructor almost every class; in fact, neither teacher could give an exact lesson or instance when Tina was the lead instructor. The reader will recall from earlier in this chapter that Tina described her work in this classroom as "…behind the scenes…" (Tina, Individual Interview 1); this phrase, her observed behaviors, and my general impression of her collaborative work with Beth indicated that there are limited opportunities for co-planning and co-instructing in this classroom. In fact, they do not have a common scheduled planning time nor have they established their own meeting time before or after school to discuss their students or coteaching actions.

Likewise, Karen and Wendy, who have been coteaching for three years in an eighth grade English class, demonstrate limited communication and a more formal professional relationship. They only exchanged words twice during my observed lesson and Wendy, the special educator, only addressed the whole class once. Most frequently, Karen and Wendy communicate about the day's lesson in the hallway, during homeroom period or at times, the night before, through email. Karen, the general educator on the team, shared that Wendy "…take[s] a back seat a lot of the time" (Karen, Individual Interview). Both of these coteaching pairs reported using the one teach – one assist model of coteaching most frequently. Using other models of coteaching is something that both pairs expressed an interest in but are still uncomfortable in doing and seem to equate using the one teach – one assist model as a result of limited communication. Karen hinted at this during the individual interview by stating:

> We are friendly and professional, yes, but sometimes those discussions about doing
> things a different way, where I'm not always the lead, are hard. You know, it is not easy
> to approach those topics sometimes…I mean, I like the idea of opening up that dialogue

and making it seem a little easier to kind of go there and do that. (Karen, Individual

Interview).

While the teachers in these two coteaching partnerships may have an explanation for their

practices, the point here is that the observed teaching practices and ideas brought up during our

interviews are indicative of a coteaching pair in the beginning developmental stage of

coteaching.

Compromising stage of coteaching. Heidi and Ed use the one teach – one assist model

of coteaching, also. However, unlike Beth and Tina, and Karen and Wendy, this coteaching pair

seems to demonstrate the characteristics of coteachers in the compromising or transition stage of

coteaching. Attributes of this developmental stage include communication that is more open.

Heidi and Ed, coteachers in Math 8, worked together before they officially began coteaching four

years ago. Previously, Ed, as the grade level special educator, met with Heidi on a regular basis

to monitor the progress of the students with disabilities in her classes. When the opportunity

came up to coteach, Ed stated that he "just ran up to Heidi and said, 'Hey, do you want to

coteach with me?' so it was really easy. We had known each other for a long time" (Ed, Joint

Interview). The established communication patterns supported their transition to coteaching.

Heidi and Ed share one common planning period a week and check-in with each other every

morning. There is also an unspoken understanding between the two. As Heidi describes it, "I can

say to Ed, 'we're doing probability this week,' and he understands all those pieces. He knows

when I'm going to move on or when I am going to do it again. He just knows my teaching"

(Heidi, Joint Interview). Initially, I interpreted this to mean that Ed was comfortable and familiar

with the content and the sequence of learning tasks in this classroom. However, I came to

understand through my observation that this statement implies more than merely knowing the

content. There appeared to be a subtle nod or pause in Heidi's teaching that allowed Ed to restate, demonstrate at the front of the classroom, or explain in a different way a concept or procedure. Heidi seems to trust Ed's understanding of the content and 'gives' him the lead, demonstrating a "sense of give and take" (Gately & Gately, 2001, p. 42) which contributed to a flow in the classroom activities and coteaching. The compromises at this stage also contribute to an increased level of professional trust.

Similarly, I observed instances of a trusting relationship in the coteaching practices of Dan and Tina, coteachers for seven years in a ninth grade Earth Science class. As previously described, when Dan, the general educator, assigned the students into working groups, Tina subtly nodded agreement to the groups Dan created. In addition, when Tina worked with one of the groups to review the procedure for completing the learning task, Dan proceeded with other teaching tasks. When asked about this in our follow-up interview, both teachers agreed that this was common to their coteaching practice.

The compromising stage is also characterized by a more interactive role for both teachers while coteaching. For example, Mark, the general educator coteaching a tenth grade Living Environment class with Lisa for the second year, is typically the lead instructor while Lisa assists students during the instructional period. There are occasions, however, when Lisa will lead instruction, clarify concepts, and redirect students to stay on task, as both reported in the interviews and from my classroom observation. Both Mark and Lisa agree that Mark is the content expert and the primary decision-maker regarding science content, classroom management, and assessments. Even in these areas, Mark is beginning to compromise and share responsibility. Lisa gave an example of this compromising:

Last year it was tricky to figure out how we were going to get all the lab time in and get everything done. This year, we came to the conclusion that if something doesn't get done in the class period then I will have to do it during one of my Study Skills periods. On my own, just me and the kids. Mark accepts that now. (Lisa, Individual Interview)

Heidi and Ed, Dan and Tina, and Mark and Lisa demonstrate the compromising stage of coteacher development. The compromising stage of coteaching requires the coteachers to have a professional relationship that demonstrates open communication, more interactive roles for the teachers, and a respected give and take by both coteachers. These compromising actions help to build a level of trust that can propel the coteaching partnership into the next developmental level, the collaborative stage of coteaching. Lisa describes the developmental nature of coteaching in this way:

I think I've become more involved as a coteacher than when I first started…When I first started here [referring to the high school], I took more of a support role. I think I've taken on a bigger role as I've gone on and now I have a little bit more comfort with it….The high school is a different beast than what elementary school is but now I have more of a comfort level with the content, with how classes run, and with what the end goals are going to be. I didn't have that when we first started. (Lisa, Individual Interview)

Collaborative stage of coteaching. Continued development of open communication and interactive practices characterize the collaborative stage of coteaching. The coteachers appear comfortable with each other and more frequently use humor in their teaching. It is often difficult to tell the difference between the general and special educator. This was apparent during my observation of Steve and Rachel, in their third year of coteaching a ninth grade Global Studies class. As I previously discussed, both teachers led class discussions in the content area and both

supported the learning of the students. There was a synergistic quality to their teaching that provided evidence of their comfort level and interactive practices.

Coteachers in the collaborative stage also become more confident in their understanding of the content and/or making curricular adaptations through their collaboration with their partners. As previously discussed, Deanna, a general educator coteaching French with Fred for three years, is more confident in her capabilities to adapt instructional materials based on her close working relationship with Fred. Fred, in turn, feels more confident in his content knowledge of French and communicated with Deanna in French during the instructional period I observed.

Progressing through the stages of coteaching. The coteachers in this study appear to be progressing through the developmental stages of coteaching at different rates, an observation Gately (2005) also noted in her research. I have provided examples of coteaching behaviors at the beginning (Karen and Wendy, coteachers for three years, and Beth and Tina, coteachers for one year), the compromising (Heidi and Ed, coteachers for three years, Dan and Tina, coteachers for seven years, and Mark and Lisa, coteachers for two years), and the collaborative stage of coteaching (Steve and Rachel and Deanna and Fred, both coteachers for three years). While these examples are helpful in understanding the stages of coteaching, it is important to note that coteachers, including those in this study, may simultaneously demonstrate teaching practices in more than one stage of coteaching. In addition, teachers in varying stages of coteaching use the same model of coteaching. For example, Karen and Wendy, who I have described as in the beginning stage, utilize the one teach – one assist model. Likewise, Heidi and Ed, who I have described as in the compromising stage, also utilize the one teach – one assist model of

coteaching. Illustrations such as these, point to the complexity of assigning one model of coteaching to one stage of coteaching.

The number of years coteachers work together may contribute to establishing open communication and building a trusting professional relationship, and in turn, the progression through the developmental stages. Even this statement is complicated when considering the coteaching practices of Deanna and Fred and Steve and Rachel, each pair coteaching for three years, who I have described as in the collaborative stage. Their use of station teaching and teaming, respectively, require more interactive collaboration, which these participant pairs have established in three years or less. Yet, other participant pairs in this study who have cotaught for more than three years did not demonstrate or discuss utilizing a coteaching model that requires this level of interactive collaboration. Among the participants in this study, there does not seem to be a pattern between the model of coteaching used and the number of years teaching or the number of years coteaching with one partner.

The stages of coteaching theory provides a broad framework for understanding coteaching practices. The stages of coteaching theory also points to the importance of the relationship between the coteaching partners and their open communication. However, this theory does not adequately describe or explain the complexity of the use of various models of coteaching or the relationship between the use of coteaching models and years of coteaching experience. Furthermore, the stages of coteaching theory does not account for the variety of coteaching practices that I observed in the cotaught classes of my participants or in their discussion of their coteaching partnerships.

In using the stages of coteaching to analyze the participant pairs' use of various coteaching models, I was prompted to question the use of coteaching models as a way to

describe coteaching practices. Identifying the models used by the participant pairs did not fully explain the instructional practices of the coteachers or the ways coteaching can potentially change instruction in the general education classroom to improve the learning outcomes for students with disabilities. The models of coteaching are useful to provide options for coteachers to consider when co-planning and coteaching. However, framing coteaching practices only by the use of one or more models is not enough to reflect thoroughly the complex practices of coteaching. In the following chapters, I continue to interrogate the complexities of coteaching at the secondary level. In the next chapter, Chapter 5, I discuss the participant pairs' understanding of coteaching and the challenges they reported as affecting their coteaching practices. In chapter 6, I take up the overarching themes generated through analyses of the data. In these two chapters, I strive to explicate the complexities of coteaching at the secondary level to gain a deeper understanding of this inclusive practice.

Chapter 5 – Understanding Coteaching and its Challenges

In the previous chapter, I discussed the models of coteaching the participants used in their teaching; Table 3 lists the coteaching model each participant pair demonstrated during the classroom observation. I concluded the chapter stressing the importance of the relationship between the coteaching partners and open communication. I expand on these ideas in this chapter. In this chapter, I explore the participants' understanding of coteaching. I also interrogate the challenges in implementing coteaching presented by the participants. Discussions in these areas strive to provide a deeper understanding of the coteaching practices of the participant pairs.

Specifically, this chapter is organized around research questions two and three, which were:

- How do participant pairs understand coteaching?

- What are some of the challenges participant pairs report in instituting or sustaining coteaching?

Participants' Understanding of Coteaching

Research question two explores the participants' understanding of coteaching. As discussed in Chapter 2, teachers' understandings are necessarily grounded in their particular context and influence their daily practices (Pajares, 1992). Therefore, while a teacher may "know" coteaching and the attributes of this model for delivering special education services, it is their "understanding" of coteaching that influences their coteaching practices. Thus, my goal in trying to gain insight into teachers' understandings about coteaching was to further illuminate their coteaching practices.

To respond to this research question, I reviewed data from several coding categories, including "Role of Teacher," "Content Area Knowledge," "How it Started for this Pair," "My-

Table 3

Summary of Coteaching Model Observed and Class Roster Composition

Co-teaching Pair	Participants	Years in this Coteaching Pair	Subject/ Grade	Coteaching Model Observed	Number of Students in Class/ Number of Students with Disabilities
#1	Karen Wendy	3	English/ 7	One teach/ one assist	26/8
#2	Heidi Ed	4	Math/ 8	One teach/ one assist	13/5
#3	Beth Tina	1	Integrated Algebra/9	One teach/ one assist	29/11
#4	Dan Tina	7	Earth Science/ 9	One teach/ one observe Alternative teaching	21/8
#5	Mark Lisa	2	Living Environment/ 10	One teach/ one assist	15/15
#6	Deanna Fred	3	French/ 9	Station teaching	25/7
#7	Steve Rachel	3	Global Studies/ 9	Teaming	23/5

Your-Our Students – Language Use," "Collaboration – Getting on the Same Page," "Effect on Instruction –Practices during Cotaught Instructional Block," "Effect on Practice– Influences in all Classes," and "Perceived Influence on Student Achievement." I also re-read the field notes from my classroom observations to ascertain the connection between the teachers' reported understandings of coteaching and observable actions during instruction. To represent the data well, I have divided my discussion into three main topics that emerged from analyzing the data. These topics are teachers' role, effect on teaching practices, and perceived benefits for students. I conclude my response to this research question by discussing the relationship between the participants' understanding of coteaching and the notion of pedagogical content knowledge.

Teachers' roles. The topic of teachers' roles in the coteaching partnership was introduced in my response to research question one regarding the coteaching models employed by the participant pairs. It is relevant to revisit this topic in regards to the coteachers' understanding of their roles in the coteaching partnership because this influences the day-to-day practices of the coteachers.

Each of the participants, in either his or her individual or joint interview, stated that both teachers had a responsibility to ensure the learning of all students. When directly discussing who is responsible for the students in the class, oftentimes the participants would comment in a way similar to what Ed, a special educator coteaching with Heidi in Math 8, described: "…Heidi can help anybody and I can help anybody. So the whole 'these are mine/these are hers' barriers are pretty well gone which is what I really like" (Ed, Individual Interview). Nonetheless, the special educators seemed committed to ensuring that the learning goals outlined on a student's Individualized Education Plan (IEP) were addressed and frequently referred to the students with disabilities as "my kids." Likewise, the general educators felt it was important to advocate for the

non-identified students in the class. As Steve, a general educator coteaching with Rachel, explained:

> I consider everybody my student and Rachel considers everybody her student. That's what it should be. But, the truth is Rachel works closer with her students…so I truthfully tend to work with the gen ed students…I would say that the nature of teaching is that, I think, we both advocate. [Rachel] advocates for the identified kids and I advocate for the gen ed kids and we meet in between…without compromising either. You got to keep high expectations and that continues to be a struggle…we go back and forth with that and we gotta make sure that we both are advocating for everybody. (Steve, Individual Interview)

Steve further explained that this is also an expectation of the administration. During our joint interview, Steve and Rachel shared an anecdote about the school principal talking to each of them about the importance of at least one teacher being the parent contact point. The principal encouraged Steve and Rachel both to be responsible for student learning during class instruction, but "behind the scenes" (Steve, Joint Interview), one teacher should contact the parent with ideas to support the student's success. Steve and Rachel interpreted this to mean that Steve should be the main contact for the parents of the general education students and Rachel should be the contact person for the parents of students identified with special educational needs. As Rachel describes it, "It makes the most sense because I usually already have had contact with the parents about the IEP" (Rachel, Joint Interview).

The commentary from Steve and Rachel is similar to the ideas expressed by the other participants. It appears that the general educator views part of his or her responsibility to advocate for the general education students while the special educator advocates for the students

with disabilities. Clearly, these are not mutually exclusive roles, nor does this viewpoint preclude both teachers from engaging with all students. From a practical standpoint, this seems a reasonable way to share responsibility so that all of the students in the classroom have an advocate for their learning needs. Furthermore, during my observations of the coteachers, it was not readily apparent which students were identified with disabilities based solely on teacher actions.

Another role the participants discussed were the roles of content expert and curriculum adaptations expert. For most of the participant pairs in this study, the general educator was the content and curriculum expert and the special educator was the curriculum adaptations expert. For some coteaching pairs, such as Deanna and Fred and Steve and Rachel, the delineation between these roles and responsibilities was less marked. The special educators, Fred and Rachel, contributed in significant ways to the instructional planning and strategy choices for the whole class. The two pairs of coteachers co-plan all instruction: "We [Deanna and Fred] always do it [planning] together" (Deanna, Joint Interview); Steve and Rachel plan lessons by writing notes in one lesson plan book designed specifically for coteachers implying a shared effort to co-plan lessons.

However, for the five other coteaching pairs, there was a clearer separation of roles with the general educator being the content expert and the special educator being the support person. As Mark, the general educator coteaching tenth grade Living Environment with Lisa, reported, "We both know our roles well and I think we are both comfortable with our roles. [Lisa is] comfortable with me presenting the material" (Mark, Individual Interview). Heidi, a general educator coteaching Math 8, described a similar relationship with her coteaching partner, Ed: "I

deliver the goods and he spends a lot of time helping kids understand what it is I'm saying…but that is him delivering the goods, too" (Heidi, Individual Interview).

The special educators' on these two teams discussed a similar division in roles. Ed, the special educator coteaching with Heidi, stated, "Yes, [Heidi is] the content expert…she know[s] exactly what we have to cover before the assessment…yeah, she definitely knows the curriculum. She has the final say and I'm fine with that" (Ed, Individual Interview). Lisa, a special educator paired with Mark, offered another explanation:

We talked about what we thought we would do. Mark was going to do most of the direct instruction and I was going to do some direct instruction. But, when it comes right down to it, Mark is the expert in the subject so I feel more comfortable, I guess I can say, in letting him do more of the direct instruction. I can do more of the accommodations with the kids, as far as, you know, making sure they're on task. Again, one of the things I see is Mark knows the subject matter but it's my job to help [the students] understand the subject matter and to bring it to their level so they can understand and make a connection with it. So, sometimes I think Mark's up at the front doing what he likes to do, but I can look around and say…this is going over their head. And so, I say to Mark that we need to stop and revamp it a little bit and make sure they understand the concept…I bring an understanding of the students and their learning styles. I know how to reach them in the best way we can. Mark can say to me [he] know[s] this is the information that we have to get through. And then, it is my job to make sure they understand the information and make sure it's at a level that they can comprehend and make a connection, help them to use outside information and bring it in to make sure they understand the concept. (Lisa, Individual Interview)

Lisa's comments emphasize that Mark has not disregarded her teaching skills but rather that both recognize that each teacher has a different expertise to contribute to the coteaching partnership. All of the students in Mark and Lisa's class are identified with a disability so it may be that the students in this class have more significant needs requiring accommodations to understand the Living Environment curriculum.

Nonetheless, the commentary from these two coteaching pairs is important to note because it sheds light on the role of the special educator in some cotaught classrooms. Researchers, such as Isherwood and Barger-Anderson (2008), Keefe and Moore (2004), Mastropieri, Scruggs, Graetz, Norland, Gardizi, and McDuffie (2005), Scruggs et al. (2007), and Vannest et al. (2011), have described the role of the special educator as being somewhat subordinate and similar to the role of a teaching assistant rather than a certified teacher. However, for at least four of the participant pairs in this study (Heidi and Ed, Mark and Lisa, Deanna and Fred, and Steve and Rachel), the role of the special educator in the cotaught classroom is integral and evidence of the shared decision-making they have engaged in with their respective partners.

For other participant pairs in this study, there seems to be less shared decision making around the role of each coteacher with the special educator assuming a position of assisting the general educator. For example, Wendy, a special education teacher, discussed her role working with a previous English teacher and her current partner, Karen, while coteaching seventh grade English. In discussing the introduction of an instructional unit centered on a piece of literature, Wendy explained, "I really do steer clear of how they begin because I know that teachers have an end goal in mind and I don't want to interrupt that end goal. I did it with [previous coteacher] and now" (Wendy, Individual Interview). Wendy did not indicate that she had ever overstepped

her self-imposed boundary but rather that she deferred to her previous coteaching partner, a practice she continues with her current partner, Karen.

This aligns with an explanation Beth, a general education math teacher coteaching with Tina, in a ninth grade Integrated Algebra class, provided: "She's [Tina] there to help support some of the stuff that I may not be familiar with, some different ways of reinforcing [the content] and different ways of redirecting" (Beth, Individual Interview 2). Beth continues,

> I know the curriculum inside and out and I know what needs to be done and in what manner it needs to be done…I have an idea of how many questions I want to get through and she [Tina] may not be familiar with that. She knows the material but she might not know how many minutes to spend on each particular problem. (Beth, Individual Interview 2)

From the comments that Beth and the other general educators made during our interviews, it appears that they feel most comfortable with being the content expert because they know the curricular expectations and necessary pacing to best position the students for success on exit exams. There are statewide exit exams for three of the courses that participants in this study teach (Integrated Algebra, Living Environment, Earth Science, and Global Studies) and departmentalized exit exams for the other courses taught by participants in this study (seventh grade English, eighth grade Math, and ninth grade French). Therefore, the concerns about performance on exit exams are understandable for the teachers in this study and align with assertions in the current literature about coteaching at the secondary level (see Friend, 2014; Mastropieri & Scruggs, 2001; Wilson et al., 2013).

Effect on teaching practices. The participants in this study also discussed the effect coteaching has on their teaching practice during the cotaught class; for those teachers who also

taught classes independently, they discussed the influence of coteaching on their teaching

practices during other instructional periods, as well. The influence of coteaching on teacher

behaviors is an important consideration. Several years ago, Hewitt (1997) suggested coteaching

as a means to improve a general educator's skills in meeting the needs of diverse students in their

class. Since that time, the premise of coteaching has evolved as a delivery model for special

educational services to proactively support students with disabilities in the general education

curriculum. However, the potential for professional development for coteachers has been

highlighted by several researchers, such as Rea, McLaughlin, and Walther-Thomas (2002),

Fontana (2005), Bickmore, Bickmore, and Hart (2005), and Pugach and Winn (2011).

The general education teachers in this study commented that coteaching helped them to

better understand the learning and behavioral needs of the students in their classes. Coteaching

allows for the immediate availability of a colleague to help the educators be more cognizant of

the needs of all learners during instruction. The general educators in this study recognized the

opportunities for professional growth embedded in a coteaching paradigm. Several commented

on the contributions coteaching has made to support their own professional development and that

coteaching provides an opportunity to talk about one's teaching practice. Mark, the general

educator coteaching with Lisa, explained it this way:

Carol: Are you a better professional because of coteaching?

Mark: I certainly think so because, like I said earlier, I'm so busy – in the setting up of

labs, taking down labs, grading, planning, copying – all those things and I just don't get

the opportunity to go and see other teachers. And, I know professionally, it's a good idea

to do that. But now, I get to teach now a whole different group of students that are

functioning at a bunch of different levels. It forced me to do things a different way for

sure and, you know, I'm working with a person that has expertise in that area and it's

been beneficial to work with her. (Mark, Individual Interview)

The collaborative practice of coteaching seems to provide opportunities to reflect and develop

professional skills to meet the needs of all learners. In the following exchange during our

individual interview, Steve, a general educator, discussed this:

Steve: …I think anytime you can collaborate with another colleague, you know, it can be

really advantageous. I think I am a better teacher now because of collaboration than I was

a couple of years back. I would think I know students better than I used to.

Carol: Are you a better teacher because of coteaching?

Steve: I think so. I think I am. I think I have a different perspective. I have a much

different perspective and a much different outlook on differentiation. Differentiation, I

always thought, was making it easier for kids with special needs. Now I have come to

realize that differentiation is not making it easier or doing less work. Differentiation is

simply modifying and teaching to their needs, not making it easier or giving less work.

(Steve, Individual Interview)

From Karen's point of view, the general educator partnered with Wendy, coteaching has

helped to reinforce the importance of using the differentiation strategies she learned in her

teacher preparation program: "…those strategies we use this year, I think they're things that I

was using or knew about before. My use of graphic organizers has really improved and the

offering of different things has improved immensely. Wendy has helped me to understand …"

(Karen, Individual Interview). Beth, a general educator coteaching Integrated Algebra with Tina,

expressed a similar idea, "[Tina is] there to support some of the stuff that I may not be familiar

with, some different ways of reinforcing [the content] and redirecting" (Beth, Individual

Interview 1). For the general education participants in this study, coteaching provides a

mechanism to hone their skills in differentiation and adaptive strategies.

The use of differentiated and adaptive strategies extends beyond the cotaught

instructional period. For those general educators who teach without a coteacher at other times of

the day (Karen, Heidi, Beth, Dan, and Mark), there is a change in pedagogical practices based on

the perceived benefits demonstrated during the cotaught periods. Dan, an Earth Science teacher,

asserts that coteaching has taught him strategies he simply would never have considered before

coteaching with Tina: "Yeah, it sure has [influenced my teaching in other classes]. I was never

trained in a lot of this…I thought a little about [multiple means of representing the content] but I

never realized it was really as important as it is" (Dan, Joint Interview).

Likewise, the special educators in this study valued the collaborative opportunities

coteaching provides. As Rachel, a special educator coteaching Global Studies with Steve,

asserts: "…you learn from each other and you get different ideas from each other that you

wouldn't have if you hadn't been exposed to being with that coteacher" (Rachel, Joint

Interview). Fred, a special educator coteaching with Deanna, shared:

> [Coteaching] is a chance to talk to somebody about the kids. And I don't just mean [the
>
> identified kids]. We spend an equal amount of time on pretty much every level of kid we
>
> have…So, I think it's really about time to talk [to your coteacher] about those kids and
>
> things like that that are valuable. It's a chance to talk about ideas and that sometimes not
>
> everything works. It's a chance to ask a fellow teacher, how do you see this kid? (Fred,
>
> Joint Interview)

Later, during our individual interview, Fred further discussed the collaborative

opportunities of coteaching by comparing them to the opportunities of a resource room teacher,

his role in the school for several years prior to coteaching with Deanna. As a resource room teacher, he often felt isolated and disconnected from the content area teachers, resulting in a disjointed learning experience for the students with special educational needs. The opportunity to discuss individual learners with other teachers, in Fred's opinion, leads to better relationships between teachers and students as well as improvements in the delivery of support services. Fred continues, "I think [coteaching] is good for teachers professionally to have the interactive collaboration. I think it makes us better teachers and that really helps the students. It's services delivered right where [students] need it" (Fred, Individual Interview).

Coteaching can also influence the content the educators teach. Heidi, a general educator coteaching Math 8 with Ed, emphasized the importance of Ed's perspective to help keep her focused on the most important curricular goals:

> [Ed has] been a great asset to me to slow down and rethink my spot, to ask myself, what is the important stuff for [the students] to know, what's my bigger picture. You know it is easier to get caught up in the math stuff, you know. (Heidi, Individual Interview

Mark and Lisa also discussed the importance of the special educator's input on targeting the most important learning objectives. Recall that all fifteen of the students in Mark and Lisa's Living Environment class are students with special educational needs. During the individual interview, Mark spoke positively of Lisa's suggestions to narrow the topic for lessons to the essential elements and allowing the children to have time to ask questions. Lisa, during her individual interview, appreciated Mark's support in creating a classroom community where students could ask questions and revisit topics as needed to improve understanding. According to Mark, these opportunities may not be possible in a typical Living Environment class.

Throughout the interviews, the participant pairs offered numerous ways in which coteaching has influenced their teaching practice, both during the cotaught instructional period and at other times. The participants discussed their changes in teaching practices in positive terms and none of the participants remarked about a negative impact that coteaching has had on their teaching practices. Ultimately, the participants expressed a desire to enact those practices that are most beneficial to student learning and support the needs of the students.

Perceived benefits for students. This discussion on the benefits of coteaching for students is based on the perceptions and impressions of the participants in this study; collecting specific data on student achievement and behavioral interventions was not a part of this study in order to safeguard the confidentiality of the students. The administrators in the participant districts, as well as the coteachers in this study, considered the learning outcomes of the students in cotaught classes; I take up this topic in the next chapter when I discuss the outside factors that influence coteaching practices. For this section, the perceived benefits of coteaching are important considerations because they may contribute to a teacher's commitment to and enactment of coteaching practices.

The participants in this study asserted that coteaching provides opportunities for students with disabilities to access the general education curriculum and learn the curriculum with the support of both teachers. As I discussed in Chapter 3, the pressure on teachers to teach in ways that generate passing scores on exit exams is a real and potentially stressful aspect of teaching. Even with this added pressure, the participants in this study recognized benefits for all students in the cotaught class. The stated benefits included improved academic achievement for the students identified with special educational needs, support for at-risk learners who may struggle with grade level material but are not identified with special educational needs, and anticipated or

improved achievement for the general education students. The coteachers believe that all students benefit from instructional adaptations and the actions of two teachers working together to deliver and reinforce the content. In the following excerpt from Deanna, a general educator coteaching French with Fred, she explained the benefits of coteaching for her students:

> I can tell you that our class passing rate is extremely high and that [coteaching] is an advantage for both the [identified] students and for general education students. They are getting two teachers. We're not just here for the special education students. We're here to help everyone out. So, students that are lower are getting more help than they would just being left alone in the classroom. We know we can take students that would normally fail the course in a different classroom and in a different setting, and they will pass our class because we have two teachers. The open communication between students and the teachers at any given time gives kids support whenever they need it…Advanced students and average students, same thing; we can push those students even further… We're not just focused on the middle of the line. We can give the extra support, the extra time, and the extra help so having two teachers together definitely creates an environment where all students can succeed. (Deanna, Individual Interview)

Other participants in this study echoed Deanna's sentiments. Most of the general educators and all of the special educators in this study remarked that coteaching improved the learning potential for students with disabilities, did not adversely affect the achievement of the other students, and may improve the learning of non-identified students.

Although most of the participants in this study stated that they perceived improved learning outcomes for all students in a coteaching class, three of the general educators expressed concerns about the achievement of students in the cotaught class during their individual

interview. Beth, coteaching Integrated Algebra with Tina, discussed students at-risk but not identified with special educational needs:

> I feel like there are some advantages in the sense that there's two of us in there that are able to get them [support]...if you get rid of those kids with at-risk behaviors, who should not be here, I feel the positives would outweigh the negative. But right now I think they just shove people in this classroom. (Beth, Individual Interview 1)

She explained further that although there is a benefit to the immediacy of two teachers being able to support all learners, the administration at her school tends to place students into the cotaught instructional period who are at-risk for failing the course because of various needs but not identified with a disability. Oftentimes, these at-risk learners are off-task, forcing Tina and her to attend to those behaviors. Thus, the students with disabilities "…fall under the shadow of the kids that need redirecting" (Beth, Individual Interview 1).

Karen, a general educator coteaching English 7 with Wendy, shared her concerns for the students who are above average. She discussed that the content is somewhat watered down during the cotaught class and she has urged the administration at her school to consider scheduling students of similar academic levels in one class period. Specifically, she suggested, "it would be nice to get some of the other low level kids that I might have [later in the day] into the class [that I coteach with] Wendy…they would really benefit from the extra support" (Karen, Individual Interview). Karen rationalized this suggestion by stating the cotaught class "…kind of distracts from [the higher level students'] learning because we're boiling a lot of it down…it's hard to have both [higher level and lower level students in the same class]" (Karen, Individual Interview). She feels three students, in particular, are bored with the strategies used during the cotaught instructional period. Although Karen agreed that Wendy and she must constantly

balance the level of support provided in the class so everyone is challenged, she feels that the

learning potential of some students is not realized. Karen did not indicate that she has considered

differentiating her instructional approach for the high level learners or that there would be an

opportunity to more effectively meet the needs of a diverse group of learners because there are

two teachers in the classroom. From this, it appears her understanding of coteaching is to

differentiate or 'boil down' the curriculum for students with a disability or students with below

grade level skills.

Steve, a general education teacher coteaching Global Studies with Rachel, had a similar

concern about challenging all levels of learners in the class. Unlike Karen, however, Steve has

reflected on this, as seen in the following statement, and expressed a desire to rethink some of

the strategies Rachel and he use.

> I've often wondered about pairing, for example. Let's say you pair a low [level] student
> and a high [level] student in regards to reading ability. The idea is to challenge everyone.
> Does that challenge the non-designated student? It will certainly help the designated
> student but the other student? How do they get challenged in that particular situation?
> Now, if they're helping and their role is to help and to teach, because that is a higher level
> thinking skill, then they probably shouldn't do that every class. That's what I've been
> thinking about. We have to work on differentiating so everyone is challenged…I mean,
> sometimes, over-differentiating is what's happening. ..You know, we've got to be a voice
> for every student. We want to challenge every student. (Steve, Individual Interview)

Therefore, while Steve echoes Karen's idea about the importance of challenging every student in

the class, he also seems to see the potential that coteaching offers in meeting the needs and

setting appropriate expectations for each learner. This became evident to him while reflecting on

his teaching practices, an activity he reported that he engages in daily since his first year of teaching. Steve's perspective on challenging all learners is similar to the ideas shared by Deanna, his colleague coteaching French 9 with Fred at the same school.

The participants in this study also offered improved behavior and social skills development for the students as an additional benefit of cotaught classes. All of the educators highlighted the importance of the students with disabilities having the opportunity to learn grade level curriculum, and in most cases, to co-learn with their non-identified peers. Cotaught classrooms have the potential to create a comfortable learning environment for all learners, which the teachers connected to positive learning experiences. For Mark and Lisa's Living Environment students, all of whom are identified with a disability, the opportunity to have access to grade level curriculum is of paramount importance. Mark, the general educator, and Lisa, the special educator, each shared this during their individual interviews. Lisa, in particular, passionately spoke of the importance of creating a classroom community of learners that allows each student to feel comfortable enough to ask and answer questions without the risk of being embarrassed.

Similarly, Fred points out that the social benefits are not solely for the students identified with disabilities:

Well, there's a lot more opportunities with kids you know academically, socially, in everything…the benefits are not just academic. There's so many other things, you know, that I think are important…the behavioral role models, the [peer] interactions are really valuable. And, it's not just the special ed kids but for the general ed kids, too. We're going to teach all of the kids…they're included, they're together. There are positive

benefits for both [types of learners]…there's a chance to learn about diversity of learning for all of them. (Fred, Individual Interview)

Fred subsequently discussed an added social benefit for students in a class of mixed abilities:

There's a chance for some of the kids that have leadership skills to work with other kids…people are leaders and have leadership skills…You learn how to interact in a group but also to get somebody who is on the border of the group to join in and be a part of the group. I think that's an important skill, too. (Fred, Individual Interview)

Fred's comment is interesting because it is not common to talk about the opportunities for student leadership in a cotaught class. The reader may recall the discussion about a student in Dan and Tina's Earth Science class supporting her classmates in completing a lab during group work. Although Dan and Tina's observed coteaching model was one teach – one observe and Deanna and Fred's observed coteaching model was station teaching, Fred's comment seems to draw parallels between two such classrooms. Fred did not observe Dan and Tina's class, which is in a different school district; he is drawing on his own observations of his students. His assertion that cotaught classes can provide leadership opportunities for students seems applicable in both settings. It is also important to note that Fred did not specify that only the general education student could be the leader but that a cotaught classroom organized in learning groups or stations provides opportunities for any student to demonstrate leadership skills.

The coteachers in this study also offered ideas about handling behavioral issues in the cotaught classroom. A common response from the participants when asked about managing student behaviors was the importance of both teachers having a similar, but not necessarily the same, approach to responding to student behaviors. This involves a level of respect and trust among the coteaching partners; no participants, in the joint or individual interview, shared

concerns about their partner's handling of student behaviors. In fact, the participants agreed that two teachers capable of monitoring and responding to student behaviors was a benefit for all students. In Tina's words:

> We can be more consistent and we're able to reward the good behaviors quicker with two adults in the room. Two heads are always better than one; we can creatively come up with some means of dealing with why the student is doing what they are doing and not just reacting to the moment. That can lead to long term solutions…to really get [the student] to learn. (Tina, Individual Interview 2)

Tina's commentary points to the positive influence of two teachers invested in the success of all students and the notion that on-task behavior can lead to improved learning. Because there are two teachers in the classroom during the instructional period, teachers can attend to inappropriate behaviors and student actions more promptly.

In cotaught classrooms, there is a lower student:teacher ratio, which would seem to allow for more interactions between a student and teacher. In my observations of the classes involved in this study, there were several instances where students had direct interactions with one or both teachers in the classroom but never both teachers simultaneously. Comparing the number of student and teacher interactions in the cotaught class and non-cotaught classes is beyond the scope of this study. In addition, I did not know the students identified with a disability in the classrooms I observed, so I cannot comment on the whether the special educator interacted with students with disabilities more than the general educator did. However, based on the interviews with the participants in this study, I can assert that the coteachers in this study did feel the lower student:teacher ratio contributed to better learning opportunities for all students in the class.

Steve discussed the lower ratio in terms of the type of coteaching model a pair may choose to use during instruction.

> …it depends on the [coteaching] model you choose. If you choose a station type model where the kids are in focused learning groups then you can circulate around the room and it's almost like, I always say, taking a big class and making it into a smaller class. If you divide the class in half and then do parallel teaching, now you're taking the numbers from 25:1 down to, you know, 12:1. So, it depends on the model that you're going to do for the day in terms of instructional strategies. (Steve, Joint Interview)

Steve's discussion of the various coteaching models in relation to the student:teacher ratio is interesting. If one assumes that a lower student:teacher ratio leads to improved learning outcomes (Blatchford, Bassett, & Brown, 2011; Friend, Cook, Hurley-Chamberlain, & Shamberger, 2010), then it seems more coteaching pairs would utilize a coteaching model that reduces the ratio. However, the one teach – one assist model was the most frequently used model among the participants in this study. This model does not reduce the student:teacher ratio because it involves one coteacher delivering instruction to the whole class with the other coteacher simultaneously supporting students. Even so, the participant pairs report benefits to coteaching, including academic and behavioral improvements, despite the one teach – one assist model of coteaching many employ on a regular basis. The data from this study, therefore, do not support the notion asserted by some authors (i.e., Friend, 2014; Scruggs, Mastropieri, & McDuffie, 2007; Volonino & Zigmond, 2007) that the one teach – one assist model of coteaching is the least effective and does not maximize student learning opportunities. Clearly, research determining more discrete descriptions of academic and behavioral gains realized using particular models of coteaching is warranted in the future.

Pedagogical Content Knowledge

The teachers in this study understood coteaching in terms of their roles within the partnership, the influence of coteaching on their teaching practices, and the perceived benefits for students. In analyzing the data to learn more about the participants' understanding of coteaching, I was reminded of Shulman's notion of the categories of knowledge that ground teacher understanding and promote student learning. Shulman (1987) suggested seven distinct bodies of knowledge teachers should have in order to be effective. These seven categories are: 1) content knowledge, 2) general pedagogical knowledge, 3) curriculum knowledge, 4) pedagogical content knowledge, 5) knowledge of learners and their characteristics, 6) knowledge of educational contexts, and 7) knowledge of educational purposes. Of special interest is pedagogical content knowledge (PCK) because this knowledge base, according to Shulman, is what distinguishes a teacher from a person who is only an expert in the field. For example, a *biologist* will have content knowledge but a *biology teacher* will have PCK, combining content knowledge and knowledge of how to teach biology. Pedagogical content knowledge is an integration of content knowledge and general pedagogical knowledge resulting in an educator who "…has the capacity…to transform the content knowledge he or she possesses into forms that are pedagogically powerful and yet adaptive to the variations in ability and background presented by the students" (Shulman, p. 15).

Pedagogical content knowledge is an established construct in the professional literature regarding teacher knowledge and effective teaching practices (Ball, Thames & Phelps, 2008; Gitomer & Zisk, 2015). Using the current literature base, Fernandez (2014) reviews several interpretations of the role of PCK in representing teachers' professional knowledge. His review includes intervention studies that purported to examine the development of teachers' knowledge

in different content areas. Fernandez discusses multiple conceptualizations of PCK and states that different authors prioritize some categories of knowledge more than others. A thorough discussion of Fernandez's review is not relevant to this study; nonetheless, it is important to note that all interpretations of teachers' knowledge included the need for an understanding of learners and their characteristics.

Thus, a teacher's understanding of teaching includes knowledge of the content, knowledge of teaching practices specific to that content, and knowledge of student learning characteristics. When discussing their understanding of coteaching, the participants in this study referenced each of these spheres of knowledge and their relationship to one another. The discussion of roles within the coteaching partnership relates to knowledge of content; the discussion of influence on teaching practices relates to knowledge of pedagogy, and the perceived benefits to students relates to knowledge of student learning characteristics.

Secondary general education teachers have content expertise in their certification area or a specific subject, such as mathematics, Global Studies, French, and so on. Special educators have content expertise in the "specialized knowledge needed to provide meaningful instruction to students with learning difficulties" (Benedict, Brownell, Park, Bettini, & Lauterbach, 2014, p. 148). Several of the participants commented on the role of the general educator of the pair being the content expert and the special educator being the strategies and adaptations expert. During coteaching, there is an amalgam of these two areas of expertise. The data from this study suggest that both the general and special educator share their specialized content knowledge during coteaching.

The general educators had ideas about how to teach their content area but this did not always extend to teaching students with diverse learning needs. The special educators added to

the general educators' understandings of best pedagogical practices by sharing their knowledge in strategies and adaptations appropriate for diverse learner needs. Several participants referred to the general educators as being more knowledgeable about the curriculum, core concepts, and common areas of misunderstanding within the content area. The general educators appeared comfortable with teaching to the typical learner but less at-ease with teaching students who may struggle with the content. As I described earlier in this chapter, several general education teachers (Beth, Dan, Karen, Mark, and Steve) remarked that their teaching has changed because of the guidance of their special education coteacher. As Dan, a general educator coteaching Earth Science with Tina, remarked: "…the stuff I didn't know before I worked with [Tina]!" (Dan, Joint Interview).

Likewise, the special educators had ideas about how to make the general education curricula accessible and comprehensible to students with disabilities and the general educators added to the special educators' understandings by sharing expertise in content specific strategies. As Fred stated:

> I didn't go to school to be a [French] teacher, science teacher, or math teacher. So obviously those people really have a better grasp on the true curriculum. So there's kind of a learning curve or acquisition time that I think you need to be comfortable with….The teachers at [the middle school] that I've had to work with have been really great about that. They have been really open to working and trying to get you to know what you need to do. (Fred, Individual Interview)

The merging of the two areas of expertise is an important component of coteaching. To be most efficient, coteachers can combine their two areas of expertise and their understanding of the students with disabilities in their class to influence positively the learning potential for all

students. It is not necessary for the special educator to have the same kind of content area knowledge since this is redundant with the expertise of the general educator, although the participants in this study valued competency in the subject matter. McKenzie (2009b) asserted the same idea in his discussion of the highly qualified mandate of recent federal legislation (NCLB and IDEA). A more thorough review of the highly qualified mandate is beyond the scope of this paper; however, it is noteworthy that coteaching practices may call into question the interpretation of current legislation regarding who is legally able to provide direct instruction in content specific courses. Seemingly, this also points to the value of coteachers developing a shared PCK.

Shared PCK, as represented by the participants in this study, resulted from the coteachers combining their areas of expertise about content, pedagogy, and student learning characteristics. Their shared PCK was more comprehensive than the body of knowledge each had individually. As discussed earlier in this chapter, several general educators, such as Mark, Steve, Karen, and Beth, shared instances of changes in their teaching practice because of coteaching. They offered several examples of how their knowledge of strategies and techniques for improving student learning and maintaining student interest was further developed because of coteaching with their special education partner. Likewise, Rachel and Fred, both special educators, remarked on their improved understanding of content-specific teaching practices because of their coteaching with the general educator.

Coteaching pairs that have developed a shared PCK utilize the expertise of each teacher to develop common understandings related to teaching their specific class. This enables coteachers to provide meaningful learning opportunities for students, including students with disabilities, which may not otherwise be possible without the collaboration of two professionals.

Shared PCK is possible with the trusted contributions of each teacher, leading to more interactive and synergistic coteaching practices. Coteachers develop a shared PCK over time by communicating their ideas openly, respecting input from each other, and valuing each other's expertise.

The language that coteachers used in their discussion of students may also be indicative of the extent of the partners' shared PCK. As coteachers gain confidence in their capabilities of supporting the learning of all students, they may use language that is more inclusive of everyone in the class and discuss their teaching practices as accommodating for a variety of learner needs. Although all of the teachers in this study were committed to the learning of all students in the class, some coteaching pairs that appeared to have more shared PCK discussed their teaching practices as more inclusive of all learners. For example, after I observed Deanna and Fred coteaching, they remarked about the success of all of the students in the class: "Good writing today by the kids…that was good work" (Fred, Classroom Observation). There was no distinction between students with disabilities and other students. Coteachers in this study who seemed to have less shared PCK, infrequently used language that referenced all students which implied a separation between typical students and students with a disability. For example, Wendy, a special educator coteaching English 7 with Karen, stated:

> Sometime I'll take them [students with disabilities] because I know there are high kids in this class and if [Karen] wants to really have them problem solve a certain portion or do a certain activity, well, I'll take my group and bring it down to their level and they get what they need. (Wendy, Joint Interview)

In the prior chapter, an exploration of the stages of coteaching (beginning, compromising, and collaborative) concluded that the stage a coteaching pair is in is not associated with the

length of time the pair has cotaught. Rather, progression through the coteaching stages may more closely align with the level of shared PCK. Considering the data from this study, it appears that the participant pairs in the beginning stage of coteaching had a limited amount of shared PCK. For example, when I observed Beth and Tina coteaching Integrated Algebra there were limited interactions between the two teachers and a sharp distinction between their respective roles in the classroom. As other coteaching pairs developed a shared PCK, their practices transitioned to more interactions and verbal exchanges, illustrative of the second stage of coteaching, the compromising stage. For example, Heidi and Ed, coteaching Math 8, spoke of daily communication about the upcoming lesson and a shared understanding of how the lesson would proceed given the topic of the day. However, Heidi, the general education teacher on the team, remained the primary lead instructor and authority on the math content. Two participant pairs in this study, Steve and Rachel, coteaching Global Studies, and Deanna and Fred, coteaching French, demonstrated the collaborative stage of coteaching. The data from interviewing and observing these two coteaching pairs provided evidence of a high degree of shared PCK. Both pairs discussed the importance of contributions from their partner in planning and delivering lessons that met the needs of all students. In my observation of these pairs, I noted integrated instructional practices with both partners leading instruction. Therefore, it seems progression through the developmental stages of coteaching closely aligns with shared PCK. As I discuss in my response to research question three, challenges in implementing coteaching may affect the development of shared PCK.

Coteaching offers the potential for teachers to develop shared PCK leading to more collaborative practices, effective teaching, and improved student learning. Shared PCK can enhance student learning because learners are not in discrete groupings, such as those with a

disability and those without. Rather, coteachers use their shared understandings about content knowledge, pedagogical knowledge, and student learning characteristics to meet the needs and improve the educational outcomes for all students. As shared PCK develops, coteaching becomes easier and more interactive. The data from this study suggests that a general educator's PCK may not provide the knowledge needed to meet the needs of students with disabilities. Likewise, special educators may lack the PCK to provide content specific support to students with disabilities in secondary schools. Without the opportunity to discuss the intersection of content knowledge, pedagogy, and student learning characteristics, coteachers lose the potential to develop a shared PCK and their practices may become mechanical or lack the synergy that characterizes interactive coteaching partnerships.

My analysis of the data continues in the next section as I discuss the challenges the participants offered as affecting their coteaching partnership.

Challenges in Coteaching

My response to research question three explicates the challenges the participant pairs confronted in implementing coteaching in their particular context. It is important to examine the challenges the participant pairs faced in order to understand more fully their experiences with coteaching. In responding to this research question, I reviewed the data collected with particular attention paid to the following coding categories: "Challenges," "Problems with Planning," "Special Educator Spread Thin," "Resolving Conflicts with Partner," "Discipline Issues," and "Administration Concerns." I also reviewed my field notes from the classroom observations I conducted. My analysis revealed three areas in which the participants experienced challenges. These areas are time for connecting, collaborating and planning instructional lessons; demands on the special educator; and the class roster composition. In the following sections, I offer a

discussion of these challenges to coteaching. I conclude with a discussion of topics that the participants did not consider challenges, even though recent literature pointed to them as areas of concerns for some coteachers.

Time for connecting, collaborating and planning instructional lessons. Several of the participant pairs recognized the importance of having time to connect with their partners. As discussed in the literature review and the previous data analysis chapter, the importance of effective communication cannot be underestimated. The participants in this study did not describe challenges with their communication patterns with their partners; instead, they discussed challenges brought about by the lack of time to communicate with each other in person. Some participant pairs, such as Heidi and Ed, Mark and Lisa, and Deanna and Fred, had been working together in the same school building with students in common for several years. When the opportunity arose to coteach, they agreed.

For Dan and Tina, coteaching began when Tina approached the chair of the science department about coteaching with Dan. A coteaching class for Earth Science was necessary to provide more support for students with disabilities and presumably comply with IEP recommendations; previously a teaching assistant supported students with disabilities in Dan's Earth Science class. Even though Dan and Tina were colleagues in the same building, they had not worked together closely until they began coteaching. Tina said, "I was scared of Dan because I didn't know him" (Tina, Joint Interview). After the chairperson broached the topic with Dan, Tina met with Dan to discuss the benefits of coteaching. She assured him, "…there will be two of us to do all this stuff…" (Tina, Joint Interview). Dan agreed to the coteaching arrangement and they have been coteaching for seven years. During the joint interview, Dan and Tina both chuckled as Tina recounted this anecdote because Tina does not find Dan intimidating anymore.

For Steve and Rachel, Karen and Wendy, and Beth and Tina, their professional relationship began as coteachers. When Rachel accepted a position at Mountainview Middle School, the district representative offered her a position in a cotaught social studies class. She readily accepted the coteaching position over other openings for special educators in the school. At Cedar Middle School where Karen and Mary teach, an administrative decision three years ago required each content area teacher to coteach for one instructional period each day. As a result, an administrator designated Karen and Wendy to coteach, without any input from either teacher. Beth's relationship with Tina began after working two years at Walnut High School when the school's administrators re-assigned courses to the teachers. They selected Beth to teach Integrated Algebra, a course that traditionally cotaught for one instructional period per day with Tina, a special educator with the district for over 20 years. Tina stated, "When Beth was assigned Integrated Algebra, I came with it!" (Tina, Individual Interview 2). Beth had experience coteaching in a prior teaching position. She was reluctant to coteach again: "I got frustrated when I cotaught in [the other district] and I have similar frustration here as well" (Beth, Individual Interview 1). Although Beth found elements of coteaching frustrating, a topic I take up in more detail in subsequent sections of this discussion, as a relatively new faculty member of the district, she felt obligated to agree to coteaching with Tina in Integrated Algebra. Rachel also had prior experiences coteaching. Although that experience was challenging, she willingly accepted the opportunity to coteach again because of her belief in the promise of this model of delivering services to students with disabilities. For Steve and Rachel, and Beth and Tina, there were various challenges in establishing a collegial relationship while at the same time beginning to coteach.

For Beth, the transition to coteaching with Tina began the month before the school year started. When they met at that time, both Beth and Tina shared ideas about how they envisioned the organization of the classroom and the format of the lessons. Beth valued Tina's input because:

> [Tina has] been the coteacher [in this course] for a while so she knew the type of children we were going to get and the kind of classroom it has been. We were kind of trying to fit it in with my [teaching] philosophy and the way that I teach. We were just trying to figure out our personalities because we could never talk before. (Beth, Individual Interview 1)

This initial meeting time appears to be important in understanding the role each teacher will assume once the coteaching begins. Unfortunately, the lack of additional time to plan and get to know each other affected Beth and Tina's coteaching relationship from the beginning. Beth felt that they never really had adequate time to plan in the beginning of the year and she independently planned the sequence and timing for the instructional units for the remainder of the year so the students could get through the curriculum. There was no common planning time for Beth and Tina; most of their collaborating was in the three or four minutes between instructional blocks when the teachers walked to separate classrooms. Beth and Tina, in their first year of coteaching, most frequently use the one teach – one assist model of coteaching. During my observation of their teaching, Tina, the special educator, did not address the whole class and had only limited verbal exchanges with Beth throughout the lesson. I also noted that Tina did not address the whole class while I observed her coteaching Earth Science with Dan; however, she played an active role in supporting students during the independent work portion of the science class. (See my discussion of "alternative teaching model of coteaching" in Chapter 4 of this document for an analysis of Tina's actions in the Earth Science classroom.) Nonetheless,

Tina, who has experience coteaching with several different teachers during the course of her tenure in the profession, appears less bothered by the limited collaboration and interactions with Beth: "I see it evolving. With coteaching, from my experience, it takes time, it takes trust, it takes mutual respect to get to the point where each pair is comfortable with one another" (Tina, Individual Interview 1).

For Rachel, a special educator, the transition to coteaching with Steve was not as difficult. She stated that she expected some tension and dissonance initially because "…with any relationship there are things [my coteachers] would have done differently and things I would have done differently…" (Rachel, Individual Interview). Nonetheless, she and Steve were committed to the importance of the program and they have "…been able to work through all of those situations when [they] disagree" (Rachel, Individual Interview). Steve was a teacher at Mountainview Middle School for several years before Rachel joined the staff. Steve and Rachel cotaught Global History for three out of four instructional blocks per day. This made collaboration "a lot better" (Rachel, Individual Interview) compared to when Rachel cotaught with several general educators at her previous school. I discuss the challenges of teaching with more than one general educator more thoroughly later in this chapter. Despite coteaching together for most instructional periods, Steve and Rachel still described the importance of common planning time as crucial to their collaborative efforts.

At Mountainview Middle School, where Steve and Rachel, and Deanna and Fred are employed, coteachers have one common planning period every other day. Their school operates on a four-day rotation of 84-minute instructional periods. Every other day, Rachel and Fred, special educators, each had one instructional support period that they taught separate from their general education coteacher. During this time, they provided instructional support for the

students with disabilities on their caseload. The general educators, Steve and Deanna, had a duty period every other day where they supervised a study hall or monitored the hallways. On the days when the teachers did not teach instructional support or have a duty elsewhere, they met in grade level teams for 40 minutes; the remainder of the block period was dedicated to the coteachers meeting with their partner. The 40-minute co-planning time was not always enough time; as Steve said, "We don't have a huge amount of time together" (Steve, Joint Interview). Fred pointed out that because the coteachers were together for most of the day, there was the opportunity to discuss student progress and tweak lessons between periods while the students exit and enter the classroom. He also pointed out that, as coteachers work together for multiple years, there was less time needed to understand the way to teach the content and more time dedicated to problem-solving student concerns.

> The fact that we have done this for three years helps. We have most of the planning done and now it's more of adjusting depending on the high or low level of the students…So a lot of this is already set [and] we can really look at what we do with the kids. [It is] not so much …what we are going to teach but how we are going to teach it for these specific kids. (Fred, Joint Interview)

Fred's ideas coincide with Friend and Cook's assertion that collaboration requires less time as coteachers develop collaborative work relationships and become more efficient with their planning time (2010). Mark, a general educator coteaching with Lisa for the second year, also stated that there was less time needed to co-plan this year.

Steve and Rachel use a coteaching plan book to assist them in co-planning lessons. Although I did not see the lesson plan book that they use, Steve described it as very helpful because the layout is specifically for coteachers to annotate what each will be doing during the

lesson. Rachel concurred that the plan book is helpful and noted that Steve generally starts the plans for a week and she adds or comments on what he has written. The plan book, kept on top of their shared desk, is readily accessible to both. Steve and Rachel's discussion of using the coteaching plan book seems to imply that not all co-planning needs to be face to face and that some teacher tools, such as the coteacher plan book, can effectively support co-planning. The use of such tools seems effective for this coteaching pair because they have already worked together for more than two years and have a common understanding, or shared pedagogical content knowledge (PCK), which enhances their collaborative practices.

The reduced need for co-planning time points to the importance of shared PCK, discussed earlier in this chapter. Because of the common understandings coteachers may develop, discussion of the content and the most effective ways to teach it takes less time. More time can be devoted to addressing the concerns of a particular group of students presently in the class. Shared PCK is not achieved after a specified number of years coteaching together. For example, other participants in this study who have cotaught more than one year still do not seem to have extensive shared PCK and continue to be concerned about a lack of planning time. Wendy, a special educator coteaching English 8 with Karen for three years, commented as follows:

> I wish we had more planning time. When we first started, we did have that co-planning
> time and we were very diligent about meeting. I think that was more successful. We tried
> our best and I mean, now, I know the novels and the activities so I can know where I can
> try to fit if we can't meet to co-plan. (Wendy, Individual Interview)

Wendy's comments imply that while they have some shared understandings, more co-planning time would enhance the contributions she can make to the lesson. Wendy is not able to meet with

Karen on a consistent basis because of some of the other demands on her time, a topic I discuss in the next section.

Demands on the special educator. The demands on the special educators' time is a challenge that both the general and special educators in this study reported as adversely affecting their coteaching practices. All of the educators had responsibilities outside of their teaching practices in the cotaught classroom; the participants did not view these expectations as unreasonable. The responsibilities of the special educators related to providing services for the students with disabilities on their caseload. These responsibilities often included progress monitoring of Individualized Education Plan (IEP) goals, monitoring grades in other general education classes, attending student placement and review meetings, writing progress reports, adapting and modifying learning tasks from the general education classroom, addressing extreme student behaviors, meeting with students during a resource or support period, and providing testing accommodations. In addition, the special educators oversaw the teaching assistants who supported students on their caseload in general education classes.

The responsibilities were overwhelming at times for the special educators in this study when coupled with the demands of coteaching in a content area. Complicating the issue was that the special educators were sometimes required to tend to these responsibilities during the cotaught instructional period or at unpredictable times. Although more prevalent for the coteachers in the Treehaven School District, all teachers were affected by this to some degree.

The special educators at the Treehaven School district were required to coteach with more than one general educator. In this study, Tina was the special educator coteaching in an Integrated Algebra class with Beth and an Earth Science class with Dan. During her instructional support period, she also supported a student taking an anatomy class. Likewise, Ed, Lisa, and

Wendy all cotaught at least one additional period with another general educator in a different content area. At Cedar Middle School (where Heidi and Ed teach) and Willow Middle School (where Karen and Wendy teach), at least one section of math and one section of English at each grade level was cotaught; therefore, Ed and Wendy cotaught one class of math and one class of English each day. At Walnut High School (where Beth, Dan, Tina, Mark and Lisa teach), various courses were cotaught depending on the needs of the students as outlined in their IEPs. For all three schools, support for other content areas was provided through a teaching assistant assigned to the general education class or resource room support from the special educator, as outlined on a student's IEP.

According to the special educators in this district, the main reason they were successful with supporting students in multiple subject areas was that they are familiar with the content and have established a relationship with the general education teachers at the school. As Ed states,

> It's knowing the curriculum and having a relationship with these teachers. I've seen all these things before [referring to class work] so I can support kids in Science and Social Studies…It will be different next year because we have a different science teacher. So that'll be all new curriculum [materials] for us to learn." (Ed, Individual Interview)

Nonetheless, collaborating with several teachers can be difficult, especially for the cotaught classes. Much of the collaboration was informal or done when it fits into the busy schedule of the coteaching partners. In the following quote, Lisa, a special educator coteaching Living Environment with Mark, noted this in comparing her collaboration with two general education coteachers in two different content areas.

A lot of the time it happens on the fly. Not so much with Mark because we've already [cotaught] for a year together. But with Ellen [general educator coteaching US History with Lisa], I don't have any common planning time either. So, we'll meet after school if we have to. We'll email back and forth to each other. Sometimes, you know if I have a duty period and she has a planning period, we can maybe connect. We just have to be creative and a little bit flexible. (Lisa, Individual Interview)

The general education partners felt the strain of having their partners complete multiple tasks during the day because it limited the opportunities to co-plan, and, in some cases, contribute to the cotaught class in meaningful ways. For Karen and Wendy, in particular, the unpredictable demands on Wendy's time, when she should have been in the classroom with Karen, were adversely affecting their coteaching practices. Karen and Wendy explained their concerns in this way:

Wendy: What's hard is that I'm pulled a lot. Last year…we planned a lot more. One of our biggest complaints this year is that during second period [when she is coteaching with Karen], once a month at least, I'm off and in a meeting called the Child Study Team and so the cohesiveness this year isn't the greatest.

Karen: I would agree. I feel like it is unfair to Wendy and me. I often will take the lead in teaching and planning. It's a circumstance of us not being able to get together and plan more…I sometimes find it frustrating, as well, because I'm thinking in my mind, that Wendy will do this on Tuesday and Thursday. But then all of a sudden, maybe that morning or maybe the night before, we find out that she's not going to be there and then I'm thinking, ok, now that throws me into a whirl. So, yeah, it's hard to plan for someone else to teach and then have them be pulled all the time. (Karen & Wendy, Joint Interview)

In a follow up question to Karen and Wendy's comments about the Child Study Team meetings, Wendy indicated that she had requested scheduling the meetings at a different time. However, her administrator said that was the best time for the related services personnel, such as the physical therapist, occupational therapist, and speech and language therapist, to meet to discuss testing results before referring a child for review by the Committee on Special Education. Although interviewing the administrator for this study was not possible, his or her response, as relayed by Wendy, seems to indicate that the cotaught classes are not a priority over other essential functions of the special educator.

At the Panoramic School District, special educators, Fred and Rachel, cotaught with one general education teacher in one content for the majority of the day. Each special educator also taught one support or resource room class for one instructional period every other day (because of the rotating four-day cycle of class periods). The students in this class were students on the special educator's caseload who needed this service. The students may or may not have been the students in the special educator's cotaught course depending on student needs and the grade-level team assigned to the student. At times, this caused minor problems as the special educators had to monitor the student's progress through weekly paper progress reports completed by the student's teachers rather than discussing the student at the grade-level team meeting.

Fred and Rachel also shared that at times they needed to leave the classroom to intervene when a student on their caseload was demonstrating extreme behaviors. This happened infrequently but adversely affected the teaching in their cotaught classroom.

The class roster composition. As reported by the participants, the composition of the class rosters, specifically the ratio of general education students to students with disabilities (see Table 3), challenged the coteachers in this study. Especially for those coteachers in the

Treehaven School District, the challenge stems from the range of learner strengths and needs present in the cotaught class. The teachers felt that their cotaught classes had a disproportionate number of students who needed academic and behavioral support beyond what a typical student needed to be successful in the course. This was seemingly because there are two teachers to support students. I previously discussed the concerns of Beth, a general educator, with at-risk students placed in the cotaught Integrated Algebra class overshadowing the needs of students with disabilities. Karen, a general educator, raised concerns about the high achieving students placed in her English 7 class not reaching their potential because of the various instructional strategies Wendy and she used to support students with disabilities in the class. Dan, coteaching with special educator, Tina, stressed the importance of providing enough, but not too much, support for learners in his Earth Science class. He compared the work that he and Tina did with other teachers:

> There's a lot of people in the school who weren't good at [helping without enabling]. That's why I said to [Tina], "Do I really want to do this?" Because they were placing kids in classes, where [the student is] coming back with 100's and in here they're getting 60's. Wait a minute, they can't be that better of a teacher! It's just easier for [the teacher] that way. So, we get all of 'em…Out of 21 students, 8 have IEP's and another 2 probably should have one. That's a lot, that's a lot…They all can go to either one of us, anytime, after school for help and they usually do. (Dan, Joint Inteview, 11/17/11)

Beth, Karen, and Dan are general educators teaching in the Treehaven School District. In this district, which includes Willow Middle School, Cedar Middle School, and Walnut High School, the number of students in the classrooms that participated in this study ranged from 21-29 students (see Table 3). The participants reported the percentage of students with disabilities in

the classrooms that I observed for this study ranged from 31%-38%. Mark and Lisa, coteachers in Living Environment at Walnut High School, had a class roster of 15, all of whom are students with a disability.

The two coteaching pairs at Mountainview Middle School in the Panoramic School District shared fewer concerns about the class rosters. Since the teachers at Mountianview coteach together for most of the day, it appears diverse students are scheduled into cotaught classes throughout the day. For example, Deanna and Fred reported they had 25 students in the class I observed, 28 % of whom had IEPs. Steve and Rachel reported they had 23 students in the class I observed, 22% of whom had IEPs. Deanna and Steve, general educators teaching French and Global Studies respectively, commented on the importance of challenging all learners in their classes. They both also added that the coteaching model provided opportunities to tailor instruction for individual learner needs, both high achieving and low achieving students.

The challenge of class roster composition in cotaught classes is the subject of much debate. Friend (2014) recommends that school administrators consider the needs of individual children to avoid de facto segregation of students with special educational needs and at-risk learners in one general education class. Other educationists, such as Hernandez (2013) recommend school personnel strive for natural proportions of students with disabilities and students of typical ability in inclusive schools. During the 2011-2012 school year, 15% of school-aged students in New York State received special educational services; the school districts represented by the participants in this study had slightly lower percentages of students who received special educational services (NYSED, 2015b). The Florida Inclusion Network (2014) recommends that the ratio not exceed one-third of the students with disabilities to two-thirds of the students without disabilities. Special education regulations in New York State

specify that no more than 12 students with disabilities can be in a cotaught classroom and the number of non-disabled students should be more than or equal to the number of students with disabilities (NYSED, 2013). The coteachers in this study did not indicate that they thought their school was out-of-compliance, and in fact, according to NYSED regulations, both school districts were within regulations. However, on a day-to-day basis, several of the coteachers in this study struggled with the diverse composition of their class roster.

Overall, the general educators did not seem as concerned about the number of students with disabilities in the class but more so with the number of other students in the cotaught class who needed support to meet grade level expectations. Some general educators may feel frustrated, as Beth did:

I do have some [students] who have failed [the class before]. And they're the whole at-risk students. They're lumped into this [cotaught] class, so it's just crazy. They don't belong in that [cotaught] class. They already had algebra one year. They failed it, they didn't take the opportunity. (Beth, Individual Interview 2).

General educators may lack confidence in their capabilities to meet the needs of students who need additional support. By sharing pedagogical knowledge and modeling strategies to support students during the cotaught class, the special educator can help to expand the PCK of the general educator.

Non-challenges. After conducting a literature review on coteaching, I anticipated the participants in this study to share concerns about volunteering for coteaching, sharing classroom space, assessing student work and completing grade reports, behavioral issues with the students

identified with disabilities, and parent reactions to the cotaught classroom. However, these topics were not challenges discussed by the coteachers I interviewed and observed.

Keefe and Moore (2004) discuss volunteering as an important consideration when forming a coteaching partnership. Their idea was that teachers who volunteer to work together would be more compatible, have better interpersonal communication, and thus, a more effective coteaching practice. There were two participant pairs in this study who did not volunteer to teach together – Karen and Wendy, and Beth and Tina. Both the special educators on these teams, Wendy and Tina, cotaught with other colleagues prior to coteaching with Karen and Beth, respectively. A discussion of the collaborative practices of these two pairs appears elsewhere in this document. Relevant to this section, however, is that of these pairs, neither expressed volunteering as an area of concern, nor impactful on their coteaching practices. In fact, Isherwood and Barger-Anderson (2008) assert a similar idea. They contend that a shared personal philosophy is more important than volunteering for coteaching. I address this topic in more detail in my response to research question four as a factor that influences coteaching practices.

At the onset of this study, I wondered if sharing a classroom would be a concern for the participants. Murawski (2010) discusses sharing space as a major barrier for coteachers at the elementary school level. However, none of the participants in this study discussed this as a concern. Steve and Rachel were the only coteaching pair that shared one classroom for the entire school day. All of the other pairs cotaught in the general educator's classroom; the special educators each had another classroom elsewhere in the building. For secondary schools where teachers coteach with multiple general educators and/or have classes they teach independently, shared space becomes less of an issue.

Another topic I was curious about at the beginning of my research was how coteachers managed the grading responsibilities for the class. The participants in this study responded to my questions regarding assessment in a way that clearly indicated that they had discussed this aspect of their partnership and apparently were not concerned about it. For each coteaching pair, the general educator prepared assessments for the class and the special educator previewed them to recommend any necessary revisions or adaptations so all learners would have the opportunity to complete them without being unfairly disadvantaged because of their disabilities. Both the general educators and special educators contributed to the grading responsibilities and generated marking period grades in consultation with each other. However, in both districts, there was a clear delineation of who recorded student progress and where that progress was recorded – the special educator was responsible for documenting progress on the IEPs and the general educators were responsible for documenting grades on the online classroom management system and report card.

At times, concerns about the behaviors of students with disabilities impede the inclusion of all children in general education classes. However, managing behavioral issues was not a concern for the coteachers in this study. Other than mentioning some idiosyncratic movements (rocking, lip smacking, and facial twitches) demonstrated by students during stressful periods, the coteachers in this study did not find the behaviors of the students with disabilities as a challenge to their coteaching practices.

Only two participant pairs, Deanna and Fred and Steve and Rachel, mentioned concerns from parents of children in the classroom. In both cases, the parents challenged the coteachers about the rigor of the class with diverse students in the class. These concerns were mollified when the parents learned more about the format of the class and the expectations for the students.

It should be noted that these coteachers teach at Mountainview Middle School and the parent concerns were from the first year in which coteaching was used in each grade level at the school. The other coteachers in this study, coteachers in the Treehaven School District, did not discuss parental concerns as a challenge to their coteaching. This may be an indication that coteaching is a recognized and accepted practice in the Treehaven School District.

Summary. In this chapter, I sought to uncover some of the challenges coteachers confront when implementing their coteaching practice. According to the participants in this study, it appears that time to connect, collaborate, and co-plan lessons was an important factor in establishing a coteaching partnership. As the partners develop a common understanding and familiarity with each other, less face time was needed for planning; however, continued opportunities to spend time together were vital to the continued collaboration and development of the coteaching partnership. Time is a precious commodity for teachers and the demands on a special educators' time can impede this development. Another that challenge the coteachers in this study reported was the composition of the classes and the ratio of struggling or needy learners compared to typical or on-grade level students. The challenges described by the participants aligns with current research (see Friend, 2010; Herrnandez, 2013; Isherwood & Barger-Anderson, 2008). However, some of the issues raised in the literature as sources of challenge for coteachers were not evident in the work and commentary of the participants. In the next chapter, I examine the ideas the participants reported as influencing their coteaching practices.

Chapter 6 – Influences on Coteaching

In this chapter, I explore the influences on the coteaching practices of the participants in this study. In examining the data, contextual components stood out as having a strong influence on coteaching. This led me to question why particular conditions seemed to be more influential for some coteaching pairs than other contextual conditions. I then interrogated the role each member of the coteaching pair played, intentionally or by circumstance. I came to understand that the roles each teacher assumed were influenced by the individual coteacher's principles of teaching as well as the principles of teaching that are shared between coteaching partners. The shared principles of teaching, in particular, seemed to guide each pairs' coteaching practice. As I gained a richer understanding of the coteaching practices of the participants in my study, I was able to broaden my understanding and better appreciate the complexity of coteaching as an instructional model for meeting the needs of diverse learners in secondary schools.

My analysis of the data about the influences on coteaching resulted in combining coding categories (see Appendix H). This generated three overarching themes: 1) contextual matters, such as administrative support, structure of the school day and teacher schedules, influence coteaching; 2) negotiations of roles within the coteaching pair and in the school building influence coteaching; and, 3) personal principles guiding teaching influence coteaching. Although these themes intertwine and contribute to the complexity of coteaching at the secondary level, I discuss each separately to illuminate key details and connections the participants reported. Following is a discussion of each of the themes.

Contextual Matters Influence Coteaching Practices

Several contextual considerations discussed by the coteachers in this study influenced their coteaching practices. The participants from one school building were not aware of any of

the other participants from another building or district involved in this study; therefore, they were not able to make a comparison of teaching conditions across districts. As the researcher, however, I was able to look at the data and draw some of these comparisons.

Outside pressures of teaching in secondary schools. During data collection, participants reported concerns over a number of pressures affecting the landscape of secondary education. Among these concerns were the convergence of Common Core State Standards, high stakes testing to assess student achievement, and the use of student achievement scores to rate each teacher's effectiveness. The participants in this study expressed added concern over the lack of clarity on how these matters would influence their standing as coteachers. Steve and Rachel, for example, discussed the impact these matters would have on the administrative observation of their coteaching. The uncertainty affected all of the coteaching pairs in the study as evidenced by the participants raising the issues of academic rigor and test scores during interviews. For some coteachers, the emphasis on academic rigor and test scores pushed the focus of teaching students with special educational needs away from IEP goals and towards general education curricular goals. Special educators, such as Ed, now realized the importance of pacing to ensure coverage of the general education curriculum. He relied on his general education partner, Heidi, to prioritize teaching time on the most significant aspects of the eighth grade math curriculum. Lisa relied on her general education partner, Mark, to do the same for the Living Environment curriculum. Likewise, the general educators needed the expertise of the special educators to maximize teaching time by using the most effective strategies for adapting the curriculum for diverse learners.

Another concern for the participants involved budgetary limitations. At Walnut High School in the Treehaven School District, Mark and Lisa were concerned about funding for the

cotaught classrooms; their cotaught Living Environment class is comprised of students all with IEPs. Each year, Lisa, the special educator, consults with the district administrators about the instructional needs of students with significant needs. The administrators need to balance the instructional needs of the students and the allocation of resources to best meet the demands of the whole school. Mark explained:

> We've got funding for next year. And in the future, we'll see if [the administration] continue to fund this class. We'll see the requirements from the state in relationship to IEPs and things that will probably necessitate whether this class is still here. (Mark, Joint Interview).

Lisa continued, "I've had classes where it's the regular ed teacher, me, and four kids…that's hard to justify" (Lisa, Joint Interview). Tina, a special educator at the same school, also shared concerns about budgetary restrictions limiting professional development opportunities. I discuss this more in the following section. Lastly, Heidi, coteaching Math 8 with Ed at Cedar Middle School in the Treehaven School District, mentioned concerns over budgeting as a factor in continuing the cotaught classes:

> I think coteaching is a great asset and I would like for it to continue. I think it costs the district money to have a coteacher because it takes Ed and puts him in my room when he could be in his room serving the kids on his caseload. It's like he's doing two jobs…I don't know what they're going to do next year when [another special educator] is assigned to another building. (Heidi, Individual Interview)

Heidi's perspective implies that coteaching does not bring new resources to meet the needs of students with disabilities but rather reallocates existing resources. Nonetheless, the

shared concerns about contextual matters outside of the school building and district clearly influenced the participants' thinking about coteaching. There was a shared concern about the continuity in their partnerships and in the ongoing use of coteaching as a way to support students with disabilities. The uncertainty about continued partnerships may lead the coteachers to limit their professional and personal time in developing a relationship and open communication skills.

Professional development opportunities. At the onset of implementation of coteaching, both the Treehaven and Panoramic school districts offered professional development opportunities regarding coteaching. The teachers in the districts attended the workshops and reported that they were useful for learning the models of coteaching. Beth, a general educator who came to the Treehaven School District after coteaching was established at Walnut High School, did not have the opportunity to participate in any district sponsored workshops on coteaching, She did, however, have professional development in this area at her previous school. The coteachers from Treehaven did not recall any additional professional development opportunities regarding teaching, collaborative practices, or communication skills. Tina pointed to budget constraints for the lack of professional development opportunities specific for coteaching. Karen, a general educator, however, specifically mentioned that she wished there were such opportunities at her school, Cedar Middle School, because she felt this would provide a forum to discuss new ways to collaborate with her special education partner, Wendy.

Conversely, the educators from Panoramic School District (Deanna and Fred, and Steve and Rachel) did recall additional professional development opportunities, but there was less of a focus specifically on coteaching strategies. As Steve, a general educator, said, "…now it's open to [all teachers] and I think everybody benefits from [learning] about differentiated instruction. The [coteachers] heard about it 3 or 4 years ago" (Steve, Individual Interview). However, the

coteachers rarely participated in ongoing professional development workshops specifically on coteaching. Fred, a special educator, suggested that the resources distributed at the first workshop provided strategies and practical advice on coteaching that continue to be useful. His coteaching partner, Deanna, remarked that Fred and she "…have found that giving time to ourselves, we can work on what we want to do and that's what we have been focusing on most recently" (Deanna, Individual Interview).

Scheduling. One contextual difference between the two school districts represented in this study, was the length of the instructional periods. The coteachers at Panoramic School district had 84-minute instructional periods while the coteachers in both the middle and high school at Treehaven School District had 42-minute instructional periods. Additionally, the coteachers at Panoramic School District (Deanna and Fred, and Steve and Rachel) coteach with one general education teacher for most of the day. In simplest terms, this resulted in more coteaching minutes per day for the partners in the Panoramic School District. This appears to be related to the implementation of more interactive and synergistic coteaching practices.

The schedule for the teachers at the Treehaven School District (Heidi and Ed, Karen and Wendy, Beth and Tina, Dan and Tina, and Mark and Lisa) required them to coteach with multiple general educators in more than one content area each day. Coteaching for shorter instructional periods and one period per school day resulted in fewer minutes with one coteacher. This seems to make it more difficult for coteachers, such as Karen and Wendy, and Beth and Tina, to establish a flow to their coteaching practices and collaborative efforts. In comparing the two school districts, there seems to be benefits to the extended time with one coteaching partner.

The availability of co-planning time, even for short amounts of time and, not necessarily, every day, is another contextual factor that influenced the coteaching practices of the

participants. Those coteachers that were able to meet on a regular basis reported attitudes that are more positive about coteaching in general. Most of the coteachers in this study report that they would like to continue coteaching and would prefer to do so with their current partners. Karen, coteaching English 7 with Wendy, would consider continuing in a cotaught classroom if she had more planning time with her coteacher, regardless of who the coteacher is. Wendy often attended meetings with other school personnel during their co-planning and coteaching period as part of her special educator responsibilities. The administrator at her school was not successful in scheduling these meetings at another time.

Beth, a general educator coteaching Integrated Algebra with Tina, remarked that she would not like to continue coteaching in the future because of the frustrations she currently experienced. Beth and Tina did not have any common planning time and collaborated in the hallway between classes. Beth attributed part of her frustrations to the lack of co-planning time as well as the class composition of the students in her classroom. Both of these factors influenced Beth's coteaching practices. Other coteaching pairs in this district who face similar challenges, such as Heidi and Ed, and Dan and Tina, have nonetheless made time to collaborate and establish more integrated coteaching practices. It is interesting to note that Tina is the special educator coteaching with Beth and Dan. Dan and Tina have cotaught for seven years whereas Beth and Tina are in their first year of coteaching. This seems to indicate that over time, coteaching partners may be better able to lessen the effects of contextual matters on their coteaching.

The district and building level administrators were not part of this study, so a discussion of the influence of their decisions on coteaching is limited. However, based on the comments from the participants, administrative support, or lack of support, is a contextual matter that influences coteaching. Length of instructional periods and professional development

opportunities may be district level decisions that must consider multiple stakeholders. Other administrative decisions, such as teachers' schedules and meeting times, may have fewer stakeholders involved and may indicate an administrator's support, or lack of support, for coteaching.

Summary of how contextual matters influence coteaching practices. Contextual matters, such as state and national pressures, professional development opportunities, length of instructional period, co-planning time, teachers' schedule, and administrative support, influenced the coteaching practices of the participants. Contextual matters may also hamper the growth of shared pedagogical content knowledge (PCK) by limiting opportunities for communication between coteachers, a notion important to the ongoing development of the coteaching partnership. However, contextual matters alone do not explain the variance in coteaching practices evident in the words and actions of the participants. Faced with these contextual matters, some coteachers took on new roles to support and advocate for students. For example, Lisa, a special educator in the Treehaven School District, lobbied the administrators at Walnut High School to establish a separate cotaught class in Living Environment for students with disabilities. This gave the learners in that class access to the general education curriculum and the potential to complete a course needed for a high school diploma. In the Panoramic School District, Fred accepted the challenge of coteaching French, a foreign language he was not fluent in, when the administrators decided to change the delivery of some special education services across the district. The following section discusses how negotiated roles in the coteaching partnership influence coteaching practices.

Negotiation of Roles within the Coteaching Partnership

The roles of teachers are multi-dimensional and dynamic; teachers interact with others in several different spheres. In addition to teaching responsibilities, teachers often advocate for children, collaborate with colleagues to revise current practices and policies, and plan and participate in community-wide events. Within a single school day, teachers may take on a different role depending on the context of these interactions; teachers may encounter parents, coworkers, support staff, administrators, and students. The potential for changing roles is greater for coteachers because they also have to work closely with one or more colleagues. In Chapter 5, I discussed the participants' views on their roles within the coteaching partnership. Here, I address how participants negotiated their roles and how this had a strong influence on their coteaching practices. Research on teachers' roles in coteaching, as reported by Harbort et al (2007) and Hernandez (2013), point to the interactive relationship between negotiated roles and teaching practices.

The special educators' role. The special educators in this study who worked with more than one general educator were able to speak to the experience of working with multiple coteachers. Although Tina was the only special educator in the study that I observed and interviewed with both of her two coteaching partners, several of the other special education participants (Wendy, Ed, Lisa, and Rachel) compared their working relationship with different general educators. The comments from the special educators reflected the variability present in different coteaching partnerships even though one of the partners was the same person. This variation is attributable to the partners negotiating their role and responsibilities within each coteaching partnership.

When I observed Dan and Tina coteaching Earth Science, there was subtle communication between the two that was not present when I observed Beth and Tina coteaching Integrated Algebra. Dan and Tina, coteachers for seven years, seemed to have reached a comfortable balance of roles and responsibilities. In a similar way, Tina discussed her coteaching relationship with another teacher who was not a participant in this study.

> Now in the last seven or eight years, I was with same English teacher for six or seven years. [Tina no longer coteaches with this English teacher.] We were the left hand and right hand. We meshed well. We shared everything – the teaching, grading, paperwork…Now at the same time I was coteaching in Earth Science. I am still in Earth Science but I do more of a 'behind the scenes' sort or work. It's just the way it has worked out with those teachers…[With Beth], it's just too early; we're not quite there yet. (Tina, Individual Interview 1)

In this statement, Tina is acknowledging that it takes time to develop coteaching relationships and relationships develop at different rates. She is also implying that her involvement in cotaught classes varies depending on the relationship she has with her general education partner.

At one point during the joint interview with Dan and Tina, they relayed an anecdote about a time when a student teacher was assigned to the classroom, which disrupted their coteaching balance. When the student teacher took over Dan's responsibilities, she dismissed Tina's contributions and devalued her participation in the classroom. Tina attempted to rectify the situation through discussions with the student teacher and Dan but the student teacher did not change her treatment of Tina. Unfortunately, Dan did not intervene. Eventually, for several days while the student teacher was the lead instructor, Tina and the students identified with special educational needs left the classroom at the beginning of the instructional period. Tina took the

students to another classroom and provided direct instruction on the content covered in the general education classroom. This dramatic move early in their coteaching partnership helped Dan realize the delicate balance that existed in the coteaching partnership that he and Tina had created and the importance of preserving that balance. This anecdote also points to the necessity of providing opportunities during teacher preparation for teacher candidates to learn about coteaching and develop collaborative skills.

General educators' role. For the coteachers in this study, there seemed to be less negotiation of the role of the general educators in the partnership. A plausible explanation for this may be that for all but one of the coteaching partnerships, Steve and Rachel, the special educator was entering the general educator's classroom. The general educator already had an established role in the classroom. Their negotiation involved sharing control of the classroom responsibilities, including teaching, and assessment. As Heidi shared,

> I think [general educators who coteach] have to be willing to let go of stuff. I think you
> have to be willing to share the reins. I think you have to be willing and recognize [that]
> you don't know it all, you just don't. And it's ok... I think for some folks, that's scary.
> (Heidi, Individual Interview)

The general educators recognized the importance of sharing control. When asked about the skills needed to coteach, every general educator indicated that the willingness to relinquish control was very important in negotiating roles for the coteachers. Some general education participants, such as Beth, coteaching Integrated Algebra, and Karen, coteaching English 7, admitted this was one of the most difficult aspects of coteaching for them. Other coteachers, such as Deanna, coteaching French, and Steve, coteaching Global Studies, stressed the connection between sharing control and opening up lines of communication. As Deanna recommended,

Don't be a control freak, you know, give a little. Let [your coteacher] see what happens

and…it might be better, it might be worse but at least talk about it…Don't be a control

freak and have open communication. (Deanna, Individual Interview)

By sharing responsibilities and having open communication, coteachers can discuss what role

they can each have in the classroom that are mutually agreeable and valued by both. This in turn,

might influence their coteaching practices because it would lead to a more synergistic and

interactive relationship that has the potential to improve student learning. Steve put it this way:

You have to be able to, number one, negotiate. You have to be able to compromise and

you have to be able to collaborate. Somebody [who] doesn't have the ability to reflect

and say maybe this can be done differently is probably not a good candidate [for

coteaching]…So, I had to learn to try things differently, try things a new way. (Steve,

Individual Interview)

Role outside the classroom. Not only do coteachers have to negotiate their role within

the coteaching partnership, they must also negotiate their role within the school building. The

dynamic roles each participant took on within their school building also influences coteaching

practices. Each of the teachers was a member of the coteaching pair, their grade level team, and

their content area department or the special education department. On a larger scale, they were

also members of the building faculty, school district, and larger professional organizations (such

as teachers' unions and professional affiliations). During our interviews, the participants of this

study discussed the various roles they assumed outside of the classroom and how that affected

their coteaching practices.

Coteaching has the potential to change the image of special education teachers in their school building. As mentioned in the preceding section, prompted by their belief that cotaught classrooms positively affect student learning, Lisa and Fred, both special educators, took on a coteaching role in their respective school buildings. By doing so, they became more involved with teaching the general education curriculum to students. For veteran special educators, such as Tina and Ed, being in a cotaught classroom increased their visibility to the other faculty in their schools and made educating students with disabilities, and typical students, a shared responsibility. Tina and Ed reported that before coteaching, general education students did not come to them for academic support. That slowly changed when they became coteachers in their respective schools; a change both viewed positively. Ed shared:

> I'm out interacting with more kids…it's a way to connect with kids and make relationships with kids that aren't identified [with disabilities]. I think it helps the special ed teacher be part of the building and less contained. It absolutely helps me…even just being part of a team is a big help…As you probably know, you're [referring to special educators] trying to fit in with your kids and yourself. And, you know, it's not easy. It is what it is and it's a worthy battle. You know I think it is important. Coteaching is the way to go. (Ed, Individual Interview)

Wendy, a special educator teaching English 7 with Karen, also expressed appreciation in being included in team meetings since the schedule at Willow Middle School made it possible for coteachers to be on the same grade level team. As she remarked:

> I've been in this building 18 years and never was able to go to team [meetings]…a lot of issues come up about kids that aren't identified [with disabilities] but have struggles. It's

really nice to participate in that discussion. So many years went by and I was kind of out of the loop. (Wendy, Joint Interview)

Some general education coteachers reported their colleagues had a different image of them because of coteaching. For example, during our joint interview, Steve, a general educator coteaching with Rachel, discussed four misconceptions several of his fellow faculty members had about coteaching. Steve and Rachel cotaught Global Studies at Mountainview Middle School; Deanna and Fred, another participant pair in this study also cotaught at Mountainview. Their cotaught classrooms are two of several in the building. It appears there was not universal understanding and acceptance of the cotaught classrooms in the building. Steve had approached the building principal about addressing the misconceptions at a faculty meeting; however, Steve reported that never occurred. Summarized from Steve's words, the misconceptions he wanted addressed at the faculty meeting were:

1. [Cotaught] classrooms were perceived as receiving all of the resources, such as interactive whiteboards, that traditional classrooms did not have access to use.

2. The curriculum was perceived to be watered-down for the students in the cotaught classrooms. Thus, some believed that every student received good grades and passed the course without the same quality of work required in traditional classrooms.

3. Teaching in a cotaught classroom was believed to be easier because there were two certified teachers to split the workload.

4. The design of the cotaught classroom was seen only benefitting students with disabilities. The general education students were thought to be doing the majority of the learning tasks; students with disabilities were seen as not working as hard as the general education students.

Rachel agreed with Steve's list of the major misconceptions about coteaching at Mountainview Middle School. When given the opportunity during conversations with colleagues and parents, Steve and Rachel explained how the cotaught classroom worked and the benefits of the program for all students. Rachel added, "[We] take the opportunity, especially during curriculum night, to explain what this program is, what it is about, how it follows the same curriculum as any other ninth grade class…[the students] are going to take the same tests" (Rachel, Joint Interview). Steve and Rachel clearly state that they do not think that the course they teach is any different than other ninth grade Global Studies classes except that they "try to do things that kind of avoid the 'one size fits all' kind of strategies" (Steve, Joint Interview). In addition, Steve has countered misconceptions about Rachel's role in the cotaught classroom: "I always clarify [to colleagues] that [Rachel] is a full time teacher; she's a licensed special educator. She's not a [teaching assistant] who does photo copies" (Steve, Joint Interview). Their commitment to educating colleagues and parents about the realities of coteaching influenced this pair's coteaching practices: "We certainly don't run the classroom in such a way that gives credit …to the argument that it's not a challenging class for the average student" (Steve, Joint Interview).

Gender. In considering the negotiation of roles in the coteaching partnership, I was curious if gender influenced the coteaching practices and the negotiated roles of the 13 participants. In this study, there were six special educators, four females and two males. There were seven general educators, four males and three females. Tina, a special educator, was a part of two coteaching partnerships in the study. There were two participant pairs with a female general educator and a male special educator (Heidi and Ed, and Deanna and Fred). When I observed Heidi and Ed, I noted that he interjected a rewording of directions as Heidi paused in her presentation to the class. During my observation of Fred's coteaching French with Deanna, I

noted that he addressed the whole class and facilitated the writing station throughout the instructional period. Fred's participation in the teaching of the class was more interactive with Deanna; however, Ed was also an active participant in the class he cotaught with Heidi although not the lead instructor. With only one observation of their coteaching practice, it is not possible to assert that Ed and Fred's gender related to their actions during the cotaught instructional period.

There were three participant pairs with a male general educator and a female special educator (Dan and Tina, Mark and Lisa, and Steve and Rachel) and two participant pairs with two female partners (Karen and Wendy, and Beth and Tina). In four of these coteaching partnerships with the female special educator (Tina in two partnerships, Lisa, and Wendy), the participants reported that the special educator infrequently, if ever, took the role of lead instructor. This is true for several content areas represented in the coteaching pairs: Dan and Tina coteaching Earth Science; Mark and Lisa coteaching Living Environment; Karen and Wendy coteaching English 7; and Beth and Tina coteaching Integrated Algebra. Rachel, coteaching Global Studies, was the only female special educator who consistently directed the whole class in instruction. It is interesting to note that Rachel was also the only special educator in the study hired specifically as a coteacher. For the other coteaching pairs, the female special educator played a more subtle role in supporting students. Rachel's four years of professional experience have always been as a coteacher. Wendy and Tina have extensive teaching careers, 28 and 32 years, respectively, that span educational practices that precede coteaching. In her current role as a special educator, Lisa cotaught two general education classes and taught on her own for a self-contained class of students with special educational needs. It may be that Wendy and Tina, and Lisa, to a lesser extent, were less assertive in taking on a lead role in their cotaught classrooms

because of previous experiences in traditional special educator roles, engrained over many years of practice. Rachel does not have the same legacy of teaching independently as a special educator and thus may have found it easier to transition to a more interactive coteaching role. Therefore, the prior experiences of the female educators in this study may contribute more to their role in the cotaught classroom rather than their gender.

Coteaching relies on interactions between the partners. Although none of the participants specifically indicated gender as influential in negotiating their role in coteaching, the emerging patterns from the single joint interview and the one observation conducted in this study point to a need for more analyses of the influence gender may have on secondary coteaching practices. Scantlebury (2005) asserts that all social interactions, including the practice of coteaching, are gendered. Researchers have used different theories to explore the collaborative relationships between male and female educators. Colwell and Boyd (2008) used critical theories, such as feminism, to explain team teaching among college faculty in an introductory education course; Scantlebury (2005) used feminist and sociocultural theories to explain the relationship between a female cooperating teacher and male teacher candidates; and Gagnier (2010) used positioning theory to explain his coteaching experiences at the secondary level. These lenses give an interesting perspective on collaboration and could be useful understanding coteaching at the secondary level. Therefore, a careful analysis of the gendered interactions and dialogue between coteaching partners could lead to deeper understandings of the influence gender may have on coteaching practices. This type of analysis is beyond the scope of the current study because it requires data from more than one cogenerated dialogue, such as the joint interview, and more observations of coteachers interacting. Furthermore, such analyses could also explicate the power dynamics in the coteaching partnership that may influence coteaching.

Summary of how negotiation of roles within the coteaching partnership and the school influence coteaching. As secondary educators move away from roles established when independent teaching was the norm, they are confronted with altering their role in the classroom to fit the coteaching paradigm. The alteration in their identity as general or special educators simultaneously requires teachers to reflect on the principles each draws on to influence his or her daily teaching practices. The next section discusses the ways personal principles influenced the coteaching practices of the participants.

Personal Principles Guiding Teaching Influence Coteaching

Schools, and especially cotaught classrooms, are places where interactive and interconnected social interactions take place. Personal principles guide every teacher's practices. However, similar to the roles teachers assume, coteaching complicates how principles influence everyday practices because of the close interactions between the partners. Coteaching "can be extremely unnerving for teachers" (Keefe, Moore, & Duff, 2004, p. 37) because it pushes both general and special educators to consider modifying their teaching principles and practices for the students and the other teacher in the classroom. Personal principles guide an individual teacher's practice, the practices of his or her coteacher may also be influential, potentially leading to dynamic coteaching practices and shared PCK.

In order for this exchange of ideas and potential influences to take place, the teachers in the coteaching partnership need to be compatible. Although some authors such as Friend and Cook (2010), recommend volunteering for a coteaching partnership as a prerequisite for successful partnering, Keefe and Moore (2004), Pugach and Winn (2011), and Scruggs, Mastropieri, and McDuffie (2007) all discuss compatibility between the two teachers as more important than whether or not they volunteer to coteach. The participant pairs in this study who

volunteered to work with each other, such as Dan and Tina, Heidi and Ed, Deanna and Fred, and Mark and Lisa, knew each other before their coteaching experience began. They may have had some indication to believe that they were compatible partners and could work together successfully; otherwise, it seems unlikely that the teachers would have volunteered to work together. Other participant pairs did not volunteer to work together, such as Karen and Wendy, Beth and Tina, and Steve and Rachel. In spite of not volunteering, these participant pairs have adjusted to their coteaching situation. At the core of compatibility seems to be similar personal principles of teaching. Villa, Thousand and Nevin (2013) recommend coteachers have shared principles to work more effectively as partners.

Personal principles. Participants in this study offered several shared principles of teaching that were important to their coteaching practices. Among the principles of teaching discussed by the participants were 1) valuing all students as part of the classroom community is important; 2) coteaching provides a way to improve pedagogical skills and meet the needs of students with disabilities; 3) coteaching provides students with disabilities access to quality, grade level curricula; and 4) instructional decision-making should be driven by student needs. Several coteachers discussed the importance of these principles in guiding their decision-making in setting up the classroom practices, in planning and implementing meaningful lessons, and in establishing a relationship with their partners. The coteachers who most frequently spoke of their shared principles were those participant pairs who demonstrated more interactive and dynamic coteaching practices.

Conversely, those participant pairs, such as Karen and Wendy, and Beth and Tina, who I observed as having less interactive coteaching practices shared little about the underlying principles that guided their practice. For example, Karen, a general educator, described ways in

which she had incorporated strategies that Wendy, her coteaching partner, suggested into her teaching practices but she did not share the underlying principle for utilizing this practice. At another point during the individual interview, Karen expressed a desire to have Wendy take more of a lead during the whole class instruction. Initially, Karen blamed a lack of planning time as preventing this from occurring. However, Karen then followed up this comment with the statement: "…our styles of teaching are very different, even just in voice and demeanor…" (Karen, Individual Interview). Karen did not expand on this idea but it may be indicative of underlying differences in teaching principles. Therefore, whether the participant pairs had not discussed or reflected on teaching principles or a difference in teaching principles, those coteaching pairs that enacted less interactive and dynamic coteaching practices did not share their teaching principles during the interviews. It could be that these participant pairs did not recognize the opportunity to discuss their principles of teaching since I did not plainly ask this of them. However, I did not ask it of the other participants either and yet their shared principles and how those principles directly influenced their teaching emerged during the interviews.

It is interesting to note that frequently during the individual interview, several coteachers, such as Heidi and Ed, and Deanna and Fred, echoed or expanded on the principles mentioned in the joint interview. When talking about the goal of coteaching for the students, Ed stated, "My goal is to have [students identified with disabilities] be a part of a class, be exposed to typical peers, and [learn content] beyond where they would have in a special math class" (Ed, Joint Interview). In an emotional response, Heidi shared her thoughts about the importance of creating a classroom community that values everyone:

I think it's healthy that people understand everybody's at a different knowledge base.

People have different gifts to bring. I think it is important to keep the mix [of student

levels]. If not, we send the message to folks that they're not smart enough, they're not important, they're not in the running, they're not going to go anywhere. And that's just wrong. (Heidi, Individual Interview)

Another example of reiterating shared principles in more than one interview is evident from the discussions with Deanna and Fred. During the individual interview, Deanna remarked that the importance of meeting the needs of students with disabilities now took precedence in planning. This sentiment echoed a comment made by Fred during the joint interview: "We've done this for three years now so a lot of the planning is done…planning is now adjusting depending on the high and low level of the students" (Fred, Joint Interview). These two examples, and similar examples from other participant pairs, seem to indicate the coteachers were like-minded and felt deeply about their shared principles.

Several participant pairs discussed the value in reflecting on their teaching and using their reflection to discuss different instructional strategies with the intention of improving the learning experiences of the students. For example, Steve made notes on his lesson plans from previous school years regarding ways to improve the activity or lesson for Global Studies. When planning with Rachel, he shared these ideas. Wendy reflected on ways to improve organizing prewriting ideas for the students in the English 7 class she cotaught with Karen. Wendy suggested these to Karen who then used them in other classes as well. During the first year Deanna and Fred cotaught French, they reflected on the way they were grouping the students for instruction and decided to change to a station teaching model to improve the teacher:student ratio. Dan increased his use of educational technology based on the input from Tina, his coteacher for Earth Science. The examples listed provide credibility to the importance of teachers not only engaging in professional reflection but also sharing their reflection with their partner to influence the

coteaching practice of the pair. This also potentially adds to the shared PCK of the partners because both teachers may discover new connections between content knowledge, pedagogy, and student learning characteristics.

Two of the participant pairs discussed their shared principles when discussing assessments. Heidi and Ed coteach Math 8 at Cedar Middle School and Mark and Lisa coteach Living Environment at Walnut High School; both schools are in the Treehaven School District. Although Heidi and Ed are aware of the emphasis on testing, nonetheless, they emphasized that the purpose of coteaching is not to improve student scores on assessments but to improve student learning. According to Heidi, the purpose of coteaching at Cedar Middle School is:

> …to help kids learn. It had nothing to do with the assessment. No body said to us in the beginning, [students with disabilities are] going to do better on assessments if we coteach. No, it's to help kids learn. It's to get them exposed to the curriculum that they're not getting elsewhere…I think you can be learning and still not be at the level that the assessment is expecting. (Heidi, Individual Interview)

While Heidi and Ed share the notion of coteaching to provide access to the general education curriculum for students identified with special educational needs, they also expressed concern over assessment results. Last year, Heidi and Ed reported that several students with disabilities did not meet expectations on state math assessments. Heidi and Ed were concerned that if the scores for the students in their class did not improve, the administration at Cedar Middle School might discontinue using cotaught classrooms to support students with disabilities in general education.

Mark and Lisa, coteachers in Living Environment, also discussed their shared understanding of assessments for their class. During the individual interview, Lisa, the special educator in the partnership, shared that their cotaught class is not ideal because all of the students have an IEP and there are no general education students in the class. Nonetheless, this class provides a significant opportunity for the students.

> I expect that all of my students will come to this class, they'll be prepared to learn, they will be attentive, they will ask informed questions, they will make connections to the living environment around them. And when they leave, they will have some background knowledge that they can go out into the world and have a discussion about why a disease may spread faster in one area than another…I don't expect them all to pass the Regents [exam]. (Lisa, Joint Interview).

Mark further described the perspective he and his coteaching partner had on the final assessment in this way:

> We know that it is unreasonable to expect all of our students will pass the Regents [exam] because of reading levels and writing abilities and to be able to tie the different concepts together. But, the Living Environment exam is unique in that it is the easiest science [exam] to pass. So, this is why we've chosen Living Environment [to coteach] for these kids. Or, I should say, Lisa got the district to agree to this. It's curriculum is now very non-specific…So we have to, for sure, teach core content and terminology but there is a flexibility in how deep we go. If we only stick to the core content, some might have a shot at passing the exam. (Mark, Joint Interview)

The commentary on assessments from these two participant pairs is interesting because both sets of teachers seem to recognize the importance of student performance on exit exams. Yet, their shared principle that the score on the assessment is not the only indicator of student achievement influenced their coteaching practices. Mark and Lisa were committed to allowing students the time they needed to process and think carefully about the concepts taught in class. Mark and Lisa accepted the slower pace of the class because their ultimate goal was providing access to the Living Environment curriculum, even though the content taught was not to the same depth of conceptual understanding as in other Living Environment classes that Mark has taught. For Heidi and Ed, the access to the Math 8 curriculum provides learning opportunities that are more enriched than if the students were in a non-cotaught classroom.

Summary of how personal principles guiding teaching influence coteaching. There were numerous ways that the coteachers in this study articulated how principles of teaching influenced their coteaching practice. The data from this study suggests that the melding of principles between the coteaching partners seems to be a barometer on the compatibility between the coteachers. It appears that coteachers who are more compatible are better able to modify their teaching practices to meet the needs of students with disabilities in their class. Several of the participant pairs, such as Heidi and Ed, Dan and Tina, Mark and Lisa, Deanna and Fred, and Steve and Rachel, articulated in some way that they were compatible by using phrases such as, "I value what [Tina] says" (Dan, Joint Interview); "…we're pretty comfortable with each other" (Mark, Individual Interview); and "…we feel free to say anything" (Deanna, Individual Interview). These coteachers also provided examples of how their teaching practices were grounded in shared principles of teaching.

For the other coteaching pairs in the study, Karen and Wendy, and Beth and Tina, their discussions during the interviews did not broach the topic of compatibility. They did not provide examples of a strong alignment of principles. It may be necessary for Karen and Wendy, and Beth and Tina to continue their coteaching to establish a foundation of shared experiences and shared PCK to bring their coteaching practices to a more dynamic and synergistic level. As Tina said, "One year with a teacher is not quite enough…" (Tina, Individual Interview 1).

Conclusion

The three themes discussed in this chapter serve to explicate further the complexities of coteaching. Several elements, both within and outside of the control of the coteachers, influence coteaching practices. Contextual matters, the negotiation of roles within the coteaching partnership and school, and the principles of teaching influenced the coteaching practices of the participants in this study. As one of these influences changes, the other influences also change in response, adding to the complexity of coteaching. It is not possible to separate completely the contextual matters from the role of the coteachers. Similarly, it is not possible to separate the negotiation of roles from the personal principles that guide a teacher's practice. Furthermore, principles of teaching have the potential to change because of shared PCK.

Ultimately, the value of coteaching may be that it provides an opportunity for teachers to reflect on their personal principles of teaching to negotiate a role within the partnership. In doing so, coteachers develop a shared understanding of pedagogical practices that can meet the needs of all students within their teaching context. Thus, coteaching can be a powerful approach to supporting students with disabilities in the general education classroom as well as supporting the continued development of teachers.

Chapter 7 – Summary, Findings, Limitations, and Implications

In this final chapter, I summarize my study on coteaching in secondary schools and briefly describe the findings of my data analysis discussed in Chapter 4, 5, and 6. I also articulate the implications this study has for practice, limitations of the study, and implications for research.

Summary of the Study

Coteaching, as defined in this study, is one general and one special education teacher sharing instructional responsibilities for at least one group of students in one classroom for at least one instructional period. Collaborative practices, such as coteaching, have become more common in schools today as a way to deliver instructional support to students with disabilities. The use of coteaching in elementary schools is a frequent topic of discussion in current literature and regarded as an effective inclusive practice (Keefe & Moore, 2004). Coteaching at the secondary level is a less documented and researched topic (Magiera & Zigmond, 2005), although increasingly used in schools. Characteristics of secondary schools, such as the focus on content specific courses, scheduling of instructional periods, and graduation requirements, add to the complexity of coteaching at this level. Therefore, the purpose of this study was to interrogate coteaching in secondary schools.

My purpose in conducting this study was to develop a deeper understanding about secondary general and special educators' lived experiences of coteaching in order to more thoroughly comprehend this form of collaboration being used to support the needs of students with disabilities in secondary schools. The research questions guiding this study were:

1. What models of coteaching are employed by participant pairs who are general and special education teachers at the secondary level?

2. How do participant pairs understand coteaching?

3. What are some of the challenges participant pairs report in instituting or sustaining coteaching?

4. What do secondary teachers report as influencing their coteaching practice?

For this study, I used qualitative research methods to gather data on coteaching practices in two suburban school districts. There were thirteen participants in this study comprising seven coteaching pairs; one special educator was a member in two participant pairs. The grade levels represented by the participants were seventh, eighth, ninth, and tenth; the content areas represented were English, French, mathematics, science, and social studies. There were eight female and five male participants, all of whom were white. I gathered data during two school years (May 2011 to March 2012) through two in-depth interviews and one observation of each of the seven participant pairs. For the interviews, I conducted semi-structured interviews with the coteaching partners together as well as each partner individually. One participant pair was not able to complete the joint interview because of scheduling difficulties. For the observation, I observed each participant pair coteaching for one instructional period. The five participant pairs from the Treehaven School District cotaught in three different buildings: Willow Middle School, Cedar Middle School, and Walnut High School. The two participant pairs from the Panoramic School District cotaught at Mountainview Middle School. The interviews and observations yielded rich data on the coteaching practices of the participants. Descriptions and analysis of the ways the participant pairs think about and enact coteaching practices within the context of sharing instructional responsibilities allowed me to probe the questions guiding this study.

Findings

I used the research questions as a framework for analyzing the data gathered during this study. Chapters 4, 5, and 6 offer in-depth responses to each of the research questions which focus on the models of coteaching, the participants' understanding of coteaching, the challenges of coteaching, and influences on coteaching practices. Following is a discussion of the findings that emerged from my analysis.

Use of Coteaching Models

One area of coteaching this study sought to explore was the use of various coteaching models in secondary schools. In examining the models of coteaching the participants used, I reviewed the data about the models of coteaching the participants reported as part of their coteaching practice as well as the coteaching practices I noted during my classroom observation. There are six commonly used coteaching models: one teach – one assist, station teaching, parallel teaching, alternative teaching, teaming, and one teach – one observe. One or more participant pairs demonstrated all of these models, except parallel teaching.

The one teach – one assist model was the most frequently observed model used by the coteachers in this study. In each observation of this model, the general education teacher was the lead instructor. Both the general and special educators seemed comfortable with this arrangement. I observed that the role of the special educator during these lessons was not passive. The special educator was able to adapt instructional tasks for individual learner needs as well as monitor student learning and behavior more readily by not being the lead instructor. However, the general educator may have equally been able to accomplish these tasks if the special educator was the lead instructor. In fact, as the partners share their expertise in their

respective fields of education, they will be better prepared to adapt their roles in the classroom to best teach the content and support the learning of their heterogeneous class of students.

The models served as a useful framework for partners to organize their coteaching practices, especially at the beginning of their partnership. Overall, it appears that describing effective coteaching practices is more complex than only naming the use of certain models. Within each model of coteaching, there are variations in the implementation of the model and its use in supporting the learning of the students in the classroom. The partners' use of one model versus another model does not seem to be dependent on years of teaching experience or years of coteaching with one partner. What does seem to influence the use of the different coteaching models is the relationship between the coteaching partners; a coteaching partnership that establishes trust and open communication between the partners seems to lead to more fluid and interactive coteaching practices, regardless of the model used in any one instructional lesson.

Participants' Understanding of Coteaching

This study also interrogated the participants' understanding of coteaching. The coteachers in this study understood coteaching in relationship to their role within the partnership, the effect of coteaching on teaching practices, and the perceived benefits for students. The general and special educators in this study stated that they shared responsibility for all students in the class; however, in their language they made a distinction between general education students and students with disabilities. There seemed to be a shared commitment for all learners to succeed with the general educators advocating for the typical learners in the classroom and the special educators advocating for the students with disabilities. This was important to the participants as it influenced the shared decision-making for each pair regarding appropriate pacing through the curriculum while at the same time differentiating the instruction so each student had the

opportunity to be successful. This also helped to define the roles each partner had in the coteaching relationship. Repeatedly, general educators considered themselves the experts in the content and the special educators considered themselves as strategy or accommodation experts for making the content accessible for all students.

Each participant in this study seemed to believe he or she had a role in the coteaching partnership. At the same time, the participants seemed to value the pedagogical content knowledge (PCK) of their partners. Pedagogical content knowledge is an amalgam of knowledge of curricular content and knowledge of content specific teaching practices. The coteaching partnership provided the opportunity for each teacher to develop shared PCK that improved his or her overall teaching practices. Participants provided evidence of this by describing the ways in which their thinking about teaching and learning has changed because of coteaching and by describing changes in their teaching practice because of coteaching. Ultimately, these changes had the potential to influence the learning of all students across instructional periods. I provide a more thorough discussion about the implications of developing shared PCK in a subsequent section of this chapter.

The participants agreed that there are benefits for the students in a cotaught class. Several participants remarked that cotaught classes gave students the opportunity to better understand each other and develop an understanding of the unique contributions each person made to a community. Although this study did not include data on student achievement, most of the participants asserted that the reason for implementing coteaching was to improve the learning opportunities for students with disabilities. Several coteachers discussed the benefit of having two teachers present to address the academic and behavioral needs of all students in the class. However, there was some concern expressed from one general educator in the study about the
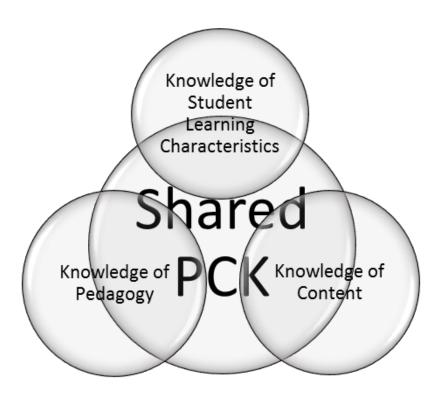
lack of academic rigor for advanced students in the cotaught classroom; she did not discuss the potential use of differentiated practices to meet the needs of more capable students. Another general educator in the study also shared concerns about the learning of typical and above average students. His response to this concern was to reflect with his coteacher on ways to adapt the learning tasks to challenge every student appropriately.

As coteaching becomes more normative in schools, educators' understanding of coteaching is relevant to the way they enact coteaching. The participants in this study understood coteaching in terms of their roles within the partnership, the effects coteaching had on their teaching practices, and the perceived benefits of coteaching for students. The open communication required of coteaching encourages an exchange of ideas about teaching and learning. As the coteachers continued to share responsibility for the students in the class, they have the potential to develop shared PCK. Combining the expertise of a content specialist and the expertise of a strategies specialist, provides an opportunity for coteaching partners to develop a more refined and deeper understanding of content, teaching practices, and student learning characteristics that would be less likely to occur without coteaching. Figure 1 is a representation of my conceptualization of shared PCK.

Challenges of Coteaching

The challenges the coteachers encountered when coteaching was another focus of this study. The participants shared several challenges they faced in implementing coteaching. One significant challenge the participants reported was the time needed to connect, collaborate, and co-plan lessons. This was especially important early on in the partnership. As the coteaching partners became more familiar with each other and trust between the partners was established, the partners reported needing less time to effectively collaborate and co-plan. However, the

Figure 1

Shared Pedagogical Content Knowledge Developed through Coteaching

Knowledge of Content includes an understanding of subject matter and content themes; interrelatedness of themes within subject and within student learning.

Knowledge of Student Learning Characteristics includes an understanding of individual student strengths and areas of need; adjusting coteaching practices as needed for student success; knowledge of present levels of performance and IEP goals.

Knowledge of Pedagogy includes an understanding best practices to teach content, best practices to teach students with learning needs, and an understanding of strategies that minimize misunderstandings and misconceptions when learning the content.

participants also reported that it was still important to meet on a regular basis to revise lessons and stay up to date on student progress. Scheduling of the school day, determined for the most part by school administrators, often made it difficult for the participants in this study to have a common planning time.

A second challenge the participant pairs dealt with was the demands on the special educators' time. The four special educators in this study from the Treehaven School District cotaught two content areas with different general educators. This made it difficult for them to focus their efforts in one content area and to maintain consistent meeting times with their coteaching partners. Furthermore, all of the special educators who participated in this study also oversaw the work of teaching assistants who supported students in other non-cotaught classrooms. Another demand on the special educators' time was dealing with events in the school involving students outside of the cotaught class. At times, this took special educators away from the cotaught classroom to attend meetings or deal with extreme behaviors of students on their caseload. The demands on the special educators' time made it difficult for some participant pairs to establish and sustain interactive coteaching practices.

An additional challenge the participants discussed was the class roster composition. Several general education participants in the study from the Treehaven School District shared their concern over the number of students in the cotaught class who were at-risk for failing but not identified with a disability. The special educators appeared less concerned over the class roster composition. Nonetheless, there appeared to be a general feeling among the teachers at the Treehaven School District that administrators scheduled a higher than expected number of at-risk students in the cotaught classroom because of the presence of two teachers. At the Panoramic

School District, the participant pairs cotaught several instructional periods together and there was less concern over the class roster composition for any one period.
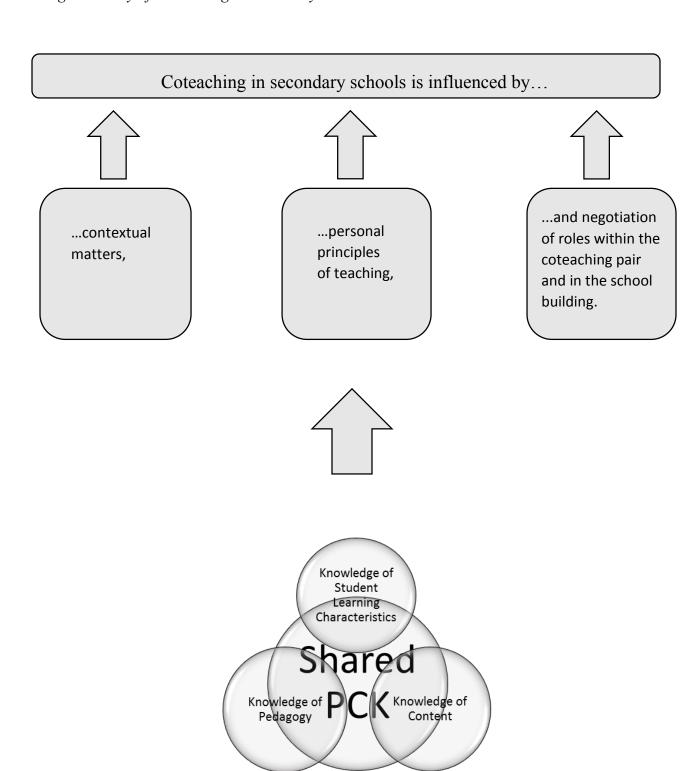
The challenges that the participants discussed – time to collaborate, connect, and co-plan; the demands on the special educators' time; and the class roster composition – affected the way the coteaching partnerships developed. The challenges described by the coteachers may have impeded their ability to establish an interactive, fluid coteaching practice. Nonetheless, for many of the coteaching pairs, the challenges did not appear to affect their coteaching practices as dramatically.

Influences on Coteaching

While the challenges described above seemed to affect some of the participant pairs in this study, others appeared less affected. This raises the question about what influences the coteaching practices of the participants in this study, the fourth topic probed by this study. Several elements seemed to affect the coteaching practices of the participant pairs: contextual matters, negotiation of teachers' roles, and personal principles of teaching. The importance of these influences on coteaching is complex because each plays a role in the coteaching partnership. Therefore, the findings of this study lead to the following emergent theory of coteaching in secondary schools. Contextual matters, both within and outside the school, influence the role teachers negotiate while coteaching. Likewise, the negotiated roles each teacher assumes are based on the personal principles that guide their practice. Personal principles of each coteacher may change based on the shared understandings developed through coteaching (shared PCK). Figure 2 represents the emergent theory of coteaching derived from this study.

Figure 2

Emergent Theory of Coteaching in Secondary Schools

Even with the various influences participant pairs faced, several were able to maintain a focused commitment to coteaching. It appeared that those coteaching pairs who shared similar personal principles of teaching were able to more readily establish trust and open communication, as reflected in their synergistic coteaching practices. Among the principles of teaching discussed by the participants in these partnerships were 1) valuing all students as part of the classroom community is important; 2) coteaching provides a way to improve pedagogical skills and meet the needs of students with disabilities; 3) coteaching provides students with disabilities access to quality, grade level curricula; and 4) instructional decision-making should be driven by student needs. Grounded in these principles, the participants valued the opportunities coteaching provided for them as professionals and for meeting the needs of students with disabilities. However, some participant pairs in this study discussed their personal principles of teaching less frequently and appeared less able to moderate the influences they confronted in their partnership. They appeared to have less shared PCK as reflected by their coteaching practices being less fluid and interactive.

Connecting the Findings with Current Literature

The findings from this study add to the current literature on coteaching in secondary schools. There is agreement between my findings and the current literature on recommendations for coteaching partnerships. For example, several participants (Karen, Beth, Steve, and Deanna) remarked on the importance of giving up some control in the classroom, discussing roles within the cotaught lesson, and negotiating responsibilities, such as grading. In addition, Villa et al (2013) indicate that successful coteaching requires an equitable partnership, co-developing and implementing shared lesson plans, utilizing effective communication patterns, shared assessment strategies, and jointly solving problems. For those participant pairs who were able to enact more

of the recommended practices, such as effective communication, shared assessment strategies, and shared problem solving, I observed more synergistic and fluid coteaching practices. Examples of such participant pairs were Heidi and Ed, Deanna and Fred, and Steve and Rachel. For other participant pairs, some coteachers stated the importance of these factors but I did not observe evidence of these practices being enacted. For example, Beth and Karen, both general educators, shared that they had a hard time relinquishing some of the control of the classroom. I noted that their partnerships with Tina and Wendy, respectively, were less synergistic and fluid. Therefore, the question of what influences teachers to take that next step – to relinquish some control and to work towards a more equitable partnership with their coteacher – becomes important to understanding the coteaching relationship of the participants. It is easy to recommend what should be done but it is important to also look at the contextual matters and personal principles of teaching that apparently influence how recommended practices are enacted and evident in coteaching.

Authors, such as Buehl and Fives (2009); Jordan, Glenn, and McGhie-Richmond (2010); and Theriot and Tice (2009), assert there is a connection between teacher beliefs, which I termed personal principles of teaching, and teacher practices. However, there is limited research examining this connection. The findings from this study point to the importance of interrogating the connection between personal principles and teaching practices. The findings also seem to indicate that the shared PCK some coteachers develop can potentially change a teacher's beliefs about their capacity to support students with disabilities in the secondary general education classroom. This potential benefit of coteaching for teacher development is important. As discussed by researchers such as Dymond et al (2007) and Van Reusen et al (2001), secondary

teachers often agree with the need to provide equal access and support in the general education classroom for all students but feel less capable of effectively teaching all learners.

The models of coteaching are often a topic of discussion in the current literature on coteaching. Several authors assert that the one teach – one assist is the most common coteaching model used with the general educator taking on the role of lead instructor and the special educator taking on the assisting role (Fontana, 2005; Scruggs et al, 2007). My observations indicated the same. However, the current literature also describes this role for the special educator as passive and isolating for the special education teacher. My data, especially the remarks from the special educators, did not indicate that this was their sentiment towards this model of coteaching. In one of my observations of the one teach – one assist model in Mark and Lisa's class (Living Environment), Lisa was active and participatory. On the other hand, Wendy was less participatory when I observed her coteaching with Karen. Although there are few studies reporting the use of specific coteaching models, Moorehead and Grillo (2013) recommend the use of station teaching in secondary mathematics and science classes. One participant pair, Deanna and Fred, reported station teaching as effective in their cotaught ninth grade French class.

Additionally, my analysis of the data indicates that beyond the recommendations outlined in the current literature, coteaching practices are enhanced when partners develop shared PCK. Shared PCK is a combination of three areas of teacher knowledge (pedagogical knowledge, content knowledge, and learner characteristics knowledge; see Figure 1) that is possible because of the close collaboration of coteaching. This new conceptualization of teacher knowledge is a way to describe the potential benefits of coteaching in supporting new teacher knowledge as well as supporting students with disabilities in the general education classroom. Therefore, the notion

of shared PCK adds to the current literature because it discusses coteaching partnerships in a new way.

Implications for Practice

My analysis of the data from this study describes the coteaching practices of the participants in this study and offers insight into the challenges and influences on coteaching in secondary schools. The findings inspire new ideas and questions that have the potential to influence teaching practices. The value of research in education is the implication the research may have on current educational practices. This study generates five major implications for practice around the topics of time, development of shared pedagogical content knowledge (PCK), use of coteaching models, recommendations for professional development, and recommendations for teacher education. Following is a discussion of the implications for practice based on the findings of this study.

Time. The findings from this study point to the importance of providing coteachers time – time to get to know each other, time to collaborate, time to co-plan, and time to reflect on their coteaching practices. This time is especially important in the beginning of the coteaching partnership, although established coteaching pairs also need time to maintain their partnership. The findings in this study indicate that less formal time is needed as coteachers have more shared experiences; collaboration can take place outside of face-to-face meetings or during brief discussions. The organization of the instructional day and the coteaching assignments also influence the total time coteachers spend together. The participants in this study who cotaught with only one coteaching partner and those participant pairs who cotaught for longer

instructional periods, overall, had more time to be with their coteachers. This may be more influential on coteaching practices compared to the number of years coteaching together.

Regardless of the structural considerations, it appears that the time invested in establishing and maintaining a coteaching partnership increases the likelihood that the coteachers will develop shared PCK. Coteaching has the potential to improve overall teaching practices by providing opportunities for professional growth based on the shared PCK.

Shared Pedagogical Content Knowledge. Previous conceptualizations of pedagogical content knowledge defined PCK as an amalgam of knowledge of content and knowledge of pedagogy. The findings from this study suggest that coteaching leads to shared PCK, which is an amalgam of knowledge of content, knowledge of pedagogy, and knowledge of student learning characteristics (see Figure 1). Shared PCK is different from traditional conceptualizations of PCK because shared PCK is achieved through collaboration, such as coteaching, and incorporates knowledge of student learning characteristics. The purpose of coteaching is to support students with disabilities in the general education classroom. Therefore, development of shared PCK is more focused on student learning characteristics compared to traditional notions of PCK. Each teacher in the coteaching partnership contributes to shared PCK according to their teaching expertise and professional strengths. In other words, working closely with an educator who has expertise in another area, coteachers have the chance to expand their content knowledge, pedagogical knowledge, and knowledge about student learning characteristics to better meet the needs of students in all classes. Furthermore, shared PCK is more than merely sharing knowledge between coteaching partners. Coteaching presents the opportunity for partners to develop new, cogenerated PCK that can guide their shared practice. Therefore, another purpose of coteaching should be to increase the shared PCK of the coteachers. As

teachers' knowledge in these spheres increases through coteaching, their practices have the potential to change in ways that may not have been possible without coteaching.

Use of coteaching models. An understanding of the coteaching models (one teach – one assist, station teaching, parallel teaching, alternative teaching, teaming, and one teach – one observe) can inform coteachers of the possible configurations for their relationship. However, the models are only guidelines. The participants in this study demonstrated complex interpretations of the models and some used more than one model within one instructional period.

The most important aspect of using any model of coteaching is the contextual circumstances and the needs of the students. Using one model over others does not reflect teacher effectiveness or sophistication. Administrators and other observers of coteaching should be mindful of this when reviewing coteaching practices in their school. Their focus should be whether coteachers are able to explain why they have chosen one model over others, either generally or in particular situations.

Recommendations for professional development. The findings of this study have the potential to inform the professional development opportunities offered within a school district. As coteaching becomes more common in secondary schools, it is important that school personnel have the opportunity to learn more about this way to support students with disabilities in the general education classroom. As shared by the participants in this study, they valued opportunities to learn more about coteaching, to co-reflect on their practice, and to problem-solve student concerns. The commentary from the participants also indicated the importance of

school administrators having a clear understanding of the complexities of coteaching in order to make informed decisions that benefit students.

Professional development opportunities for administrators should lead to a deeper understanding of coteaching models, time needed for coteachers to collaborate, and the influence of schedules and class rosters on coteaching practices. This includes knowledge about the variations within the coteaching models and that the models are best used as a framework for instructional decisions. The use of one model does not necessarily imply teacher effectiveness or engagement in the lesson. Most importantly, administrators should ensure that the coteaching partners are able to articulate their shared decision-making in selecting one model over another for a particular lesson based on contextual matters, such as the lesson topic, student needs, and teacher strengths. In addition, administrators should recognize the importance of time for coteachers to connect, co-plan, and collaborate, and provide for this time in the master schedule of assigning teacher duties and responsibilities. This includes prioritizing the cotaught instructional period when scheduling meetings and committee work for coteaching partners. By varying the master schedule, a more efficient use of teacher resources may be realized. Finally, administrators need to review the student roster in cotaught classes to determine the potential impact student needs may have on coteaching practices.

Ongoing professional development for coteachers will allow partners to continue to develop their knowledge of coteaching and reflect on their current practices. The professional development may include workshops to review of the various coteaching models and recognition that the models are a guiding framework for instructional decision-making. Another topic for professional development may be learning about strategies to develop and maintain open communication among coteaching partners, such as asynchronous internet based tools.

Coteachers should have the opportunity to understand that the potential of coteaching may be better realized when partners develop a shared PCK and that coteaching may influence teaching practices across instructional periods and outside of the coteaching arrangement.

Recommendations for teacher education. Although the focus of this study was not on the teacher preparation programs of the participants, current educational practices in schools require teachers to enter the profession with the knowledge and skills needed to collaborate effectively. All of the participants in this study had some professional development on coteaching; however, the findings raise questions about teacher preparation. Teacher preparation programs need to be attentive to helping teacher candidates develop this necessary knowledge and skill set. Programs that prepare teachers should model collaboration and coteaching among teacher educators and provide opportunities for teacher candidates to coteach with their peers.

As described in the literature review for this study, some teacher preparation programs have incorporated coteaching during the capstone experience of teacher preparation, student teaching. However, coteaching at the student teaching level may not be possible given the definition of coteaching used in this study: one general and one special education teacher sharing instructional responsibilities for at least one group of students in one classroom for at least one instructional period. In the student teaching experience, the teacher candidate does not typically share responsibility for the student learning – it ultimately is the cooperating teacher's responsibility and a condition of continued employment. Most student teaching experiences involve a cooperating teacher mentoring a teacher candidate in the same content area so there are not two areas of expertise represented in the pair. Furthermore, the cooperating teacher is in an evaluative role; therefore, there is no parity in their roles. Modifications to the traditional student teaching experience, especially in regards to the language used to describe the experience, are

necessary to promote the development of coteaching skills during teacher candidacy. There may be value in creating opportunities where two teacher candidates, in different certification areas, coteach as their student teaching experience.

As demonstrated by the participant pairs in this study, coteaching is complex; it takes time and experience to build the coteaching relationship and to enact coteaching practices that are synergistic. Teacher preparation programs need to incorporate collaborative opportunities throughout the preparation program so teacher candidates have the occasion to learn about and practice collaboration before entering the workforce. Innovative course assignments requiring collaboration across certification areas can provide meaningful co-planning and coteaching practice for teacher candidates.

Limitations and Implications for Research

There are several limitations of this study to consider in reviewing the findings. The first consideration is the race of the participants. All of the participants were white, as is the researcher. The student population in each of the school buildings was predominantly white, as well. The lack of racial diversity among the participants and the students they teach prevents an analysis of possible racial influences on coteaching practices in secondary schools. Likewise, the racial similarity between the participants and the researcher may have influenced the data collection process in unknown ways. After meeting with the principals at each participant building, they forwarded me the names and contact information for five participant pairs; participants recommended the other participant pairs. There was no opportunity to inquire about other coteaching pairs in the building who may have represented more racial diversity. Studies examining the influence of gender, race, and authority on the development of the coteaching

partnerships are missing in the current literature. Such research may include discourse analyses of cogenerated dialogue from additional interviews and classroom observations.

This raises another limitation of the study. I conducted one classroom observation of the participant pairs coteaching, one joint interview with each coteaching pair, and one individual interview with each coteaching partner. Future studies incorporating more observations and interviews would support assertions about how gender and power may influence the coteaching relationship. Additionally, such studies may yield deeper understandings how coteaching practices change over time and the potential influence of shared PCK on coteaching practices.

Observing and interviewing coteaching pairs over time has other possible benefits. Coteaching also has the potential to change the image of students with disabilities in the school. However, very few of the participants in this study spoke of this potential and did not remark about how coteaching changed their view of students with disabilities as being more capable of mastering grade level content because of coteaching. Observing and interviewing teachers over time may provide evidence of changes in how students with disabilities are viewed by educators, in particular general educators.

I observed each coteaching pair for one instructional period. This is a limitation of the study because there is no way to verify if the coteaching practices I observed were typical of the pair other than the commentary provided during the interviews. Also, there was not an opportunity to determine if the coteaching practices of the pair changed over time or changed depending on the type of lesson being taught (for example, an introduction to a unit of study or the conclusion of a unit of study). Studies that incorporated observations of coteachers for more than one lesson may or may not demonstrate a variety of coteaching practices being used by a

coteaching pair. Follow-up interviews to the observations may also provide insight into the decision-making process coteachers used in deciding to use a particular model of coteaching and the satisfaction coteachers have in using one coteaching model over another.

For this study, I contacted all of the participants based on suggestions from the building principals or their colleagues. This may have generated a participant pool that consisted of coteachers who were willing to talk about their coteaching practices. There were no recommendations to solicit participation from problematic or struggling participants. Therefore, the data gathered may have been skewed to the experiences of more successful coteaching partners. Interviewing and observing coteachers who identified as struggling in their partnership would add to our understanding of the components of coteaching that have a significant influence on the coteaching partnership. In addition, using other data collection measures other than self-reporting may lead to interesting findings. Potentially, researchers could learn more about the effect of various contextual matters and professional characteristics on the coteaching relationship.

The participants in this study cotaught at two school districts. One school district, Treehaven, required special educators to coteach in more than one content area and with more than one general educator. The instructional periods at this district were 42 minutes each. The other participant school district, Panoramic, required special educators to coteach in one content area with the same general educator. The instructional periods at this district were 84 minutes each. The participants discussed the challenges of working with more than one coteacher. However, it was not possible to analyze the possible influence of working with one coteacher separate from the length of the instructional blocks, which may influence coteaching practices differently. Therefore, it would be beneficial to compare and contrast coteaching in different

secondary contexts, such as: coteaching across different period lengths; special educators working with one general educator in one content area; special educators working with more than one general educator in one content area; and special educators coteaching with one grade level team. Other contextual factors that could be studied may be general educators working with more than one special educator and comparing coteaching in middle and high schools. This line of inquiry is important; outcomes from such studies can affect the scheduling and teacher assignments decisions made by administrators.

Limitations of this study also include the lack of student achievement data for the students identified with disabilities and the non-identified students. Obtaining this information was beyond the scope of this study. However, exploring the relationship between coteaching practices and student achievement would provide a more thorough picture of coteaching at the secondary level and support assertions about the effectiveness of this collaborative model. New research in coteaching in secondary schools should include exploration of student academic and behavioral achievement. The achievement of both students with disabilities and students not identified with disabilities is important to consider. Likewise, the influence of one coteaching model on achievement compared to another would be helpful in supporting coteachers' decision-making in implementing coteaching practices. The contributions of cotaught classrooms in supporting students with disabilities in successfully reaching grade level and curricular benchmarks (such as subject exit tests) aligns with the current focus on student outcomes in secondary schools.

The hallmark of special education is specially designed instruction to support the learning needs of a student with a disability. Although this study looked at coteaching practices in several classrooms, without specific information about the needs of the students, there was no way to

determine if the instruction I observed was specially designed for the learners in the classroom. Therefore, future research studying coteaching at the secondary level must include a closer look at whether or not cotaught classrooms are truly implementing specialized instructional practices that appropriately support students with disabilities. There is tremendous value in general education teachers developing shared PCK based on their collaborative efforts with special educators. Shared PCK may prove to be a powerful result of coteaching. However, if coteaching is the mechanism to deliver special education services, then the field will benefit from research that identifies those coteaching practices that offer specialized instruction, not merely enhanced instruction, in the general education classroom.

Conclusion

This study adds to the current literature about coteaching practices in secondary schools by reporting the experiences of secondary coteachers and identifying the need for continued, systematic research in coteaching. The findings are significant because they provide insight into the use of coteaching models, coteachers' understanding of their coteaching practices, the challenges of coteaching at the secondary level, and matters that influence coteaching. Contextual matters, negotiation of roles within the coteaching partnership, and personal principles of teaching influence coteaching in secondary schools. Personal principles of teaching have the potential to change because of shared PCK. Also of significance is the conceptualization of shared PCK. Shared PCK is a blending of knowledge of content, knowledge of pedagogy, and knowledge of student learning characteristics. As coteachers develop a shared PCK, there is the potential for their teaching to change in ways that may not have been possible without coteaching. Therefore, the findings from this study offer a deeper understanding of

coteaching in secondary schools and the potential of coteaching to change the teaching practices

of general and special educators in supporting all students in the general education classroom.

<u>Appendix A</u>

Letter of Parents

School of Education
Teaching and Leadership Programs

March 20, 2011

Dear Parents:

We are writing to you to let you know about a research study Carol Willard is conducting in your child's classroom. Ms. Willard is a graduate student from the School of Education at Syracuse University (SU). The title of the study is Coteaching in the Secondary School.

PURPOSE: A research study is a way to learn more about people. In this study, Ms. Willard is trying to learn more about how two teachers work together to teach one class of students in one classroom. She will be talking to the teachers outside of class time and observing the teachers in the classroom for one instructional period on one day.

PARTICIPATION: If you decide to allow your child to take part in this study, he or she will not be asked to do anything other than what is typically done in the classroom when the teachers are instructing the students. There will be no videotaping or audio recording of the teachers or students. Ms. Willard will take notes about how the teachers interact with each other and share instructional duties during one class period.

RISKS & BENEFITS: There are some things about this study you should know. The students may feel uncomfortable with Ms. Willard being in the classroom. The benefit to this study is that we hope to learn more about how to effectively teach our students.

REPORTS: When Ms. Willard is finished with this study, she will write a report about what was learned. This report will not include any students or teacher names or the name of the school district.

VOLUNTARY: Voluntary means that you do not have to allow your child to be in this study if you do not want him or her to participate. The choice to have your child participate in this study or not will have no effect on your child's grade in this course. If you do not want your child to participate, Ms. Willard will not write any notes about your child's actions in the classroom or his or her interactions with the teachers. If you choose not to have your child participate in this study, please inform the classroom teachers or Ms. Willard at 315-443-2685.

QUESTIONS: You can ask questions about this study whenever you wish. If you want to, you may call Ms. Willard at 315-443-2685, or you may call Dr. Gerald Mager at 315-443-4752. If you are not happy about this study and would like to speak to someone other than Ms. Willard, you may call the Syracuse University Institutional Review Board at 315-443-3013.

We look forward to this opportunity to work together and learn more about our school.

Sincerely,

Carol A. Willard	<Name>	<Name>
Doctoral Candidate	Director of Special Education	Principal
Syracuse University	<Name of School>	<Name of School>

Appendix B

Letter to Students

School of Education
Teaching and Leadership Programs

March 20, 2011

Dear Students:

My name is Carol Willard, and I am from the School of Education at Syracuse University (SU). I am talking to you to let you know about a research study I am conducting in your classroom. The title of the study is Coteaching in Secondary Schools.

In this study, I am trying to learn more about how two teachers work together to teach one class of students in one classroom.

 If you decide to take part in this study, I will not ask you to do anything other than what is typically done in the classroom when the teachers are instructing you. I will not video tape or audio record the teachers or you. I will take notes about how the teachers interact with each other and share teaching duties during this one class period.

There are some things about this study you should know. You may feel uncomfortable with me being in the classroom.

When I am finished with this study, I will write a report about what was learned. This report will not include any student or teacher names or the name of the school district.

Your participation in this study is voluntary, meaning that it is up to you to decide if you want to take part in this study. The choice to participate in this study or not will have no effect on your grade in this course. Your parents have been informed of this study in a letter that went home last week. If you do not want to participate, I will not write any notes about your actions in the classroom or your interactions with the teachers. Please let me or one of the teachers know if you choose not to take part in this study.

You can ask questions about this study whenever you wish. If you want to, you may call me or my faculty advisor at Syracuse University. If you are not happy about this study and would like to speak to someone other than me, you may call the Syracuse University Institutional Review Board. Your parents and teachers have the phone numbers.

Thank you.

<u>Appendix C</u>

Informed Consent Letter

School of Education
Teaching and Leadership Programs

Coteaching in the Secondary School

My name is Carol Willard, and I am a graduate student at Syracuse University. I am inviting you to participate in a research study. Involvement in the study is voluntary, so you may choose to participate or not. This sheet will explain the study to you and please feel free to ask questions about the research if you have any. I will be happy to explain anything in detail if you wish.

I am interested in learning more about coteaching in secondary schools. You will be asked to discuss your coteaching with me on two occasions. Ideally, the first interview will be with your coteaching partner and me; the second interview will be just you and me. Each interview will take approximately one hour of your time. I would also like to observe you and your coteaching partner teaching for one instructional period. The classroom observation should take approximately one instructional period. In any articles I write or any presentations that I make, I will use a made-up name for you, and I will not reveal details where you work.

Confidentiality cannot be guaranteed in group situations. Your coteaching partner will know how you answer questions in the first interview. While we will discourage anyone from sharing this information outside of the group, we cannot guarantee confidentiality by other group members. We will do our best to keep all of your personal information private and confidential but absolute confidentiality cannot be guaranteed.

I would like to electronically audio record both interviews. I will delete the audio file when the study is complete. I will not be electronically recording the classroom observation.

The benefit of this research is that you will be helping us to understand coteaching in secondary schools. This information should help us to understand coteaching as a means of meeting the needs of students in secondary schools. There are no benefits to you by taking part.

The risks to you of participating in this study are minimal. You may experience discomfort in knowing that your words and actions are being observed, and in the case of the interviews, electronically recorded. These risks will be minimized by knowing that the audio files and observation notes will not be shared with anyone but the researcher and her advisors.

If you do not want to take part, you have the right to refuse to take part, without penalty. If you decide to take part and later no longer wish to continue, you have the right to withdraw from the study at any time, without penalty.

If you have any questions, concerns, complaints about the research, contact the Dr. G. Mager at 315-443-4752. If you have any questions about your rights as a research participant, you have questions, concerns, or complaints that you wish to address to someone other than the investigator, or if you cannot reach the investigator, contact the Syracuse University Institutional Review Board at 315-443-3013.

All of my questions have been answered, I am over the age of 18 and I wish to participate in this research study. I have received a copy of this consent form.

___ I agree to be audio taped.

___ I do not agree to be audio taped.

_____   _____

Signature of participant   Date

_____

Printed name of participant

_____   _____

Signature of researcher   Date

Carol A. Willard_____

Printed name of researcher

<u>Appendix D</u>

Participants:_____   Date:_____

Interview #1 Protocol

Tell me about how coteaching is working in your classroom? How did you feel about the prospects of co-teaching at first compared to now?

Tell me about what each of you add to the relationship—are you similar or really different in terms of what each of you bring to your co-teaching?

Tell me what a typical lesson looks like when you are coteaching. (i.e., timing, pace, structure). Does this structure pretty much stay the same regardless of what you are teaching (or who you are teaching with) or does it change? How?

What components of your coteaching partnership appear to be working well?

How did you decide how you were going to work out your coteaching arrangement? Has the arrangement stayed the same or has it changed over time?

What are some of the challenges you've faced (either in the past or currently) related to co-teaching?

What, if any, things have you done to resolve this concern?

How has your collaboration changed throughout the year or over time?

How has your coteaching affected the academic, behavioral, and social development of your students? How do you know?

What are the skills teachers need to be successful coteachers? Were you taught these skills? Where/how?

Would it be possible to observe one period when you and your partner are coteaching? When (date and time)?

Appendix E

Participants:_____   Date:_____

Interview #2 Protocol

Did I observe a typical lesson (i.e., timing, pace, structure)? Does this structure pretty much stay the same regardless of what you are teaching (or who you are teaching with) or does it change? How?

What do you think would help you continue to be a good coteacher or improve your coteaching situation?

How is coteaching different from your teaching other periods of the day?

Is coteaching different from other arrangements to support learners in your classroom (such as "push-in")? In what ways is it similar/different?

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Tell me about what each of you add to the relationship—are you similar or really different in terms of what each of you bring to your co-teaching?

What components of your coteaching partnership appear to be working well?

How did you decide how you were going to work out your coteaching arrangement? Has the arrangement stayed the same or has it changed over time?

What are some of the challenges you've faced (either in the past or currently) related to co-teaching?

What, if any, things have you done to resolve this concern?

How has your collaboration changed throughout the year or over time?

How has your coteaching affected the academic, behavioral, and social development of your students? How do you know?

What are the skills teachers need to be successful coteachers? Were you taught these skills? Where/how?

<u>Appendix F</u>

Observation Guide

Participants: _____ (SPE Tchr.) _____ (Gen Ed. Tchr.)

Date: _____ Time: _____ Content/Grade Level: _____

Notations I should be making as I observe….	**Questions I should be asking myself as I observe. . .**
o Communication Patterns (teacher : teacher, teacher : student, student : student) o Language Use o Movement Patterns (teachers, students) o Classroom Set-Up (desks, learning groups, teacher desk, materials) o Timing (clock time, duration of lesson segments)	o Can the role of each teacher be defined at any given point in the lesson? o Is each teacher's role meaningful? Do the roles of the teachers vary during the lesson? o Are both teachers comfortable with process and content of the lesson? o Are both teachers working with all students? o What evidence is there that teachers co-planned the lesson? o What strategies/modifications/adaptations are used to assist students? o Are a variety of students called on to answer/ask questions?

Appendix G

Original Coding Categories	Expanded Coding Categories
• Professional Development • Opinions about Coteaching • Professional Roles • Day to Day Practices	• Administrative Concerns • Benefits for Students • Challenges of Coteaching • Collaboration – getting on the same page • Coteaching and High Achieving Students • Content Area Knowledge • Co-planning Daily Lessons • Discipline Issues • Effect on Instruction – day to day practices during cotaught instructional block • Effect on Teaching – influences in all classes • Future of Coteaching • Grading Issues • Her-His Students / My Students – use of language referents • How it Started for this Pair • Interesting Anecdote about a Student • Philosophy of Learning and Teaching • Problems with Planning Time • Resolving Conflict with Partner – tension/discontent • Role of Teacher • Skills Needed to Coteach • Special Educator Spread Thin • Structure of School Day • Training / Professional Development in Coteaching

Appendix H

Themes and Corresponding Coding Categories

Theme	Coding Category	Illustrative Excerpts from Semi-structured Interviews
Contextual factors influence coteaching practices	Administrative Concerns Challenges of Coteaching Content Area Knowledge How It Started for This Pair Interesting Anecdote about a Student Problems with Planning Time Structure of School Day Special Educator Spread Thin Training / Professional Development in Coteaching	"I think it costs the district money to have a coteacher …I don't know what they're going to do next year when [another special educator] is assigned to another building." (Heidi, Individual Interview) "We've got funding for next year. And in the future, we'll see if [the administration] continue to fund this class. We'll see the requirements from the state in relationship to IEPs and things that will probably necessitate whether this class is still here."(Mark, Joint Interview).
Negotiation of roles within the coteaching pair and in the school building influence coteaching	Challenges of Coteaching Collaboration – Getting on the Same Page Co-planning Daily Lessons Discipline Issues Effect on Instruction – Practices during Cotaught Instructional Period Grading Issues Resolving Conflict with Partner Role of Teacher Skills Needed to Coteach	"Don't be a control freak, you know, give a little …Don't be a control freak and have open communication." (Deanna, Individual Interview) "You have to be able to, number one, negotiate. You have to be able to compromise and you have to be able to collaborate."(Steve, Individual Interview) "I'm out interacting with more kids…it's a way to connect with kids and make relationships with kids that aren't identified [with disabilities]. I think it helps the special ed teacher be part of the building and less contained. It absolutely helps me…even just being part of a team is a big help…" (Ed, Individual Interview)

		"I always clarify [to colleagues] that [Rachel] is a full time teacher; she's a licensed special educator. She's not a [teaching assistant] who does photo copies" (Steve, Joint Interview).
Personal principles guiding teaching influence coteaching	Perceived Influence on Student Achievement Challenges of Coteaching Collaboration – Getting on the Same Page Coteaching and High Achieving Students Effect on Teaching – Influences in all Classes Future of Coteaching My-Your-Our Students – Language Use Personal Principles of Learning and Teaching Skills Needed to Coteach	"…our styles of teaching are very different, even just in voice and demeanor…" (Karen, Individual Interview) "My goal is to have [students identified with disabilities] be a part of a class, be exposed to typical peers, and [learn content] beyond where they would have in a special math class" (Ed, Joint Interview). I think it's healthy that people understand everybody's at a different knowledge base. People have different gifts to bring. I think it is important to keep the mix [of student levels]. If not, we send the message to folks that they're not smart enough, they're not important, they're not in the running, they're not going to go anywhere. And that's just wrong. (Heidi, Individual Interview)

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Curriculum Vitae

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Graduate and Undergraduate Schools Attended

Syracuse University, Syracuse, New York

Trenton State College, Trenton, New Jersey

State University College at Geneseo, New York

Degrees Awards

Master of Education, 1989, Trenton State College

Bachelor of Science in Education, 1984, State University College at Geneseo

Awards and Honors

B. Harootunian Award, Syracuse University, 2011

Future Professoriate Program, Syracuse University, 2006 – 2008

Graduate Assistantship, Syracuse University, 2004 - 2010

Marshall Gelfand Scholarship, Syracuse University, 2007

Professional Experience

Assistant Professor, SUNY Oswego, 2013 – present

Visiting Assistant Professor, SUNY Oswego, 2012 – 2013

Adjunct Professor, Syracuse University, 2007 – 2012

Adult Education Teacher, Syracuse City School District, Syracuse, NY, 2003 – 2004

Field Placement Supervisor and School Liaison, Syracuse University, 2001-2004

Special Education Teacher
  Early Intervention Itinerant Teacher, Syracuse, NY, 1994-2001
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