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Teachers' Opinions of Coteaching

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This is to certify that the doctoral study by

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Walden University
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Abstract

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by

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MA, University of Phoenix, 2004

BS, Elizabeth City State University, 1998

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Georgia's College and Career Ready Performance Index for 2014-2016 showed that students with disabilities (SwD) did not meet performance targets when taught in co-taught inclusion classrooms with both general education teachers (GET) and special education teachers (SET) in the classrooms. The purpose of this study was to determine the differences in teacher opinions of co-taught inclusion classrooms and their ability to teach SwD between GET and SET. The theoretical basis for this study was Johnson and Johnson's cooperative learning theory. A sample of 88 elementary, middle, and high school teachers completed the Opinions Relative to Integration of Students with Disabilities scale. A 2-tailed independent *t* test was used to compare the total scores and subscale scores between GET and SET. Results did not show a significant difference for the overall scale as well as the three subscales benefits of integration, inclusive classroom management, and using the coteaching model to promote the academic growth of SwD. However, the opinion of teachers differed significantly ($p = 0.02$) in terms of being able to teach SwD adequately with SET ($M = 6.21$) scoring themselves significantly lower than GET ($M = 8.43$). This study could possibly influence positive social change by providing an overall understanding of how teachers reflect on their ability to teach SwD and the need to better support SET who feel less confident. The results provide school district personnel with an understanding of their teachers' opinions of the coteaching model and the need for additional support which might lead to a more effective inclusion program for all students.

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Dedication

This study is dedicated to my children, “The Fantastic Four.” Rashawn, you entered my life when I was just a teenager on the brink of adulthood. However, you were my inspiration to go harder and never give up. I admire your strong faith and dedication to serving God. Kailen, watching you transform has been nothing short of amazing. Your energy has given me life on so many occasions. Continue to keep your go-getter mentality. You are limitless. Kason, God definitely has a sense of humor. I am so thankful that God chose me to be your mother. You keep me on my toes. I love your inquisitive mind. Shana, you have told me on numerous occasions how much you appreciate me. However, I want you to know you are appreciated more than words could ever express. You have beat so many odds. You are an awesome mother and wife. Your personalities make you all different, but I love you all the same. I sincerely pray God continues to bless you all with the desires of your hearts.

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Chapter 1: Introduction to the Study

Determining effective practices for students with disabilities to acquire their education with other students without disabilities is a component of complying with the Individuals with Disabilities Education Act (IDEA) of 2004 and the Every Student Succeeds Act (ESSA) of 2015, according to the Georgia Department of Education (2016b). Throughout the state, coteaching is used as an instructional model to comply with those federal mandates (Georgia Department of Education, 2016a). Students with disabilities included in classrooms with coteachers have transformed the way in which students receive educational services and support (Ford, 2013). Administrators in Georgia's school districts have responded by using coteaching as an instructional delivery model to ensure that students with disabilities acquire their education alongside students without disabilities in the same environment. The purpose of this quantitative research study was to determine if there are significant differences between general education teachers' and special education teachers' opinions of inclusion classrooms with coteachers in a Georgia suburban school district. IDEA and ESSA do not define the concept of inclusion and only provide extensive information on the least restrictive environment (LRE); therefore, teachers' opinions of inclusion classrooms with coteachers could be significant in the academic success of students with disabilities. LRE provisions focus on where a student learns and require students with disabilities to be educated with students without disabilities in a general education setting to the maximum extent appropriate (Osborne & Russo, 2014). Because quality instruction is fundamental to student learning, and teacher perceptions impact the success of educational practices,

measuring teacher perceptions is essential (Antonak & Larrivee, 1995; Monsen, Ewing, & Boyle, 2015).

During the 2014-2015 school year, Georgia Department of Education (2016a) administrators began offering additional resources to teachers serving students in the LRE and designed a course entitled "Co-Teaching 201." The administrators of the state department of education have implied that coteaching allows more focus on student learning and provides more hands-on and interactive instruction benefiting all students (Georgia Department of Education, 2016a). Therefore, conducting a study of the opinions of general education and special education teachers regarding inclusion classrooms with coteachers may assist school district leaders in understanding and improving coteaching in inclusion classrooms. Additionally, such a study may create positive change while contributing to the knowledge base on inclusion and teaching students with disabilities in the general education classroom. It may be possible to identify ways to increase teacher success while improving student achievement in the general education and special education populations.

Chapter 1 contains a review of the background of the study, including a summary of the research literature and why this study is needed. Additionally, Chapter 1 covers the statement of the problem, the purpose of the study, and the research questions and hypotheses. This chapter also addresses the theoretical framework, nature, operational definitions, assumptions, scope and delimitations, limitations, and significance of the study.

Background of the Study

Presently in Georgia, there are students with disabilities taught in inclusion classrooms with coteachers who are not meeting grade-level requirements (Georgia Department of Education, 2016a). Consequently, this study was conducted to reveal teachers' opinions of inclusion classrooms with coteachers. Students are left frustrated as a result of their low achievement. Lack of consideration of teachers' opinions of inclusion during the planning phase causes teachers frustration; additionally, teachers have limited knowledge and resources to properly educate students with disabilities in a classroom with two coteachers (Andrews & Brown, 2015).

Andrews and Brown (2015) proposed that conducting a study of teacher perceptions of coteaching could provide insight concerning what is deemed effective teaching by general education teachers and special education teachers. Additionally, administrators could determine whether teachers' expectations are being met. Hunter-Johnson, Newton, and Cambridge-Johnson (2014) discussed how it is imperative to assess the perceptions of teachers in coteaching settings so that necessary strategies are implemented for the benefit of the students and the teacher. Some teachers may welcome coteaching, whereas others may feel challenged or be in a state of confusion about the expectations of their role as a coteacher. Studying the perceptions of general education teachers and special education teachers regarding classrooms with coteachers may help in determining the reasons why some teachers are reluctant to teach students with disabilities in the general education classroom (Hunter-Johnson et al., 2014).

Research in special education has shown that the inclusion of students with disabilities in general education classrooms is a common practice (Billingsley, McLeskey, & Crockett, 2017). Current research shows that students with disabilities receiving instruction in general education classrooms with coteachers demonstrate low academic achievement and postschool success (Billingsley et al., 2017). Teachers' professional perceptions of coteaching correspond with students' capability to master both academic and social objectives (Boström & Dalin, 2015).

Research about teacher perceptions of professional development (Arthaud, Aram, Breck, Doelling, & Bushrow, 2007; Hutchinson et al., 2015) and teachers' perceptions of students with disabilities (Bernhardt, 2015; Boström & Dalin, 2015) will be discussed further in Chapter 2. Additionally, research on including students with disabilities in a general education classroom is available (Erickson & Davis, 2015; Kleyn & Valle, 2014; Obiakor, Harris, Mutua, Rotatori, & Algozzine, 2012; Osborne & Russo, 2014). However, research on the perceptions of teachers regarding inclusion classrooms with coteachers is scarce (Bonvin, Schürch, & Valls, 2014).

After considering the limited current research in regard to teacher perceptions of inclusion classrooms with coteachers, it was determined that research was needed. The current research indicated that a gap in literature existed concerning teacher perceptions on the topic of inclusion classrooms with coteachers (Casserly & Padden, 2018). Research is only beginning to reveal the relationship between this instructional approach and teacher perceptions (Petrick, 2015). The study was needed to fill the knowledge gap regarding teacher opinions and the use of coteaching as an instructional approach. This

study may provide insight into the current mindset of general education teachers and special education teachers regarding inclusion classrooms with coteachers as well as prompt further research.

Statement of the Problem

The problem of interest in this research study was that students with disabilities taught in inclusion classrooms with coteachers had low scores on standardized tests though there were two certified teachers in the classroom. Data from a district's 2014, 2015, and 2016 College and Career Ready Performance Index (CCRPI) reports showed that no elementary or middle school students with disabilities taught in the general education classroom within the district met the performance targets identified for the state or subgroup. The high schools within the district met the subgroup target but did not meet the state performance targets for students with disabilities for those 3 years as well.

Approximately 61% of students with disabilities across the nation receive 80% of their education in inclusion classrooms with coteachers. However, low standardized test scores of students with disabilities have caused resistance and controversy regarding the success of inclusion classrooms with coteachers (King-Sears, Brawand, Jenkins, & Preston-Smith, 2014). Locally, the gap in practice indicated by King-Sears et al. (2014) was present because students with disabilities taught in inclusion classrooms with coteachers had low scores on standardized tests. The opinions of general education and special education teachers regarding the benefits of inclusion, inclusive classroom management, and their ability to teach students with disabilities are important to determine the success of coteaching, including student achievement (Murawski &

Goodwin, 2014). Although general education teachers and special education teachers have positive attitudes toward inclusion and coteaching, specific problems remain. Some of those specific problems are coteachers lacking a common planning time, special education teachers lacking content knowledge, communication between coteachers, discipline and behavior management issues, and differences in teaching philosophies that need to be addressed (Scruggs & Mastropieri, 2017).

CCRPI reports for 2014, 2015, and 2016 for the East Metro School District (EMSD; a pseudonym) showed that the district's elementary and middle school students with disabilities taught in the general education classroom did not meet the performance targets identified for the state or their particular subgroup. The high schools within the school district reached the subgroup target but did not meet the state performance targets for students with disabilities (Georgia Department of Education, 2015). Therefore, to promote continuous improvement, the district developed a strategic plan. Several of the core beliefs within the strategic plan deal with (a) focusing on teaching and learning, (b) ensuring that an effective teacher instructs every class, (b) creating an environment where all are valued and respected, (c) creating an environment where all are encouraged to contribute and are recognized for their efforts, and (d) holding everyone accountable for educational excellence. The strategic plan also outlined performance objectives, which included providing equitable access to academically rigorous courses and programs and developing a highly effective and accountable workforce. Now that students with disabilities have equal access, they are assigned to inclusion classrooms with coteachers. Poorly implemented coteaching practices due to the lack of knowledge about coteaching

and lack of knowledge about students with disabilities may affect the scores of students (Klehm, 2014). However, the suburban school district has not collected any data to determine whether a significant difference exists between the opinions of general education teachers and special education teachers regarding inclusion classrooms with coteachers. Additionally, there are no data identifying the teachers' opinions of their ability to teach students.

A 2015 review of the EMSD's website revealed that there was no separate tool used to evaluate the opinions of general education teachers and special education teachers in a coteaching environment. The district's director of special education confirmed via e-mail that no perception data were collected from general education teachers and special education teachers regarding inclusion classrooms with coteachers. However, she stressed that although it was not known whether teacher opinions were a contributing factor to the low scores of students with disabilities, she did think that the perception data were needed. The data would assist identifying effective coteachers, planning for new teacher collaboration opportunities, and providing professional development as needed.

Positive teacher perceptions of inclusion are necessary preconditions to the success of inclusion (Cook, Semmel, & Gerver, 1999; Smith & Smith, 2000). Antonak and Larrivee (1995) suggested that inclusion can be successful. The majority of the existing research has focused on the implementation of coteaching, coteaching best practices, and the concept of inclusive classrooms (Ball & Green, 2014; DeMatthews & Mawhinney, 2013; Montgomery & Mirenda, 2014; Ryan, 2014). The research centered around inclusion and coteaching has concentrated mainly on implementation,

professional development, and the impact that inclusion and coteaching have on student achievement. There is minimal information on how teachers' opinions influence inclusion and coteaching practices and the outcomes within districts and individual schools that could help in determining what works and what should be improved (Chitiyo, 2017). Teachers who are comfortable with serving students with disabilities usually have a confident attitude toward coteaching, whereas those teachers who are uncomfortable are likely to exhibit negative attitudes and experience difficulty in providing effective instruction to students with disabilities (Montgomery & Mirenda, 2014). Therefore, a study of the opinions of general education teachers and special education teachers could determine whether long-term changes in teachers' opinions are needed.

Purpose of the Study

Presently, the opinions of teachers regarding inclusion classrooms with coteachers need to be identified in the areas of the benefits of coteaching, classroom management, student readiness, and teacher readiness (Dieker & Murawski, 2003; King-Sears et al., 2014). The purpose of this quantitative descriptive research study was to determine if differences in opinions exist between general education teachers and special education teachers regarding inclusion classrooms with coteachers in a suburban Georgia school district. According to De Boer, Pijl, and Minnaert (2011), effective coteaching practices are substantially dependent upon the teachers' acceptance of the methods. Once the teachers' opinions on inclusion are known, coteacher strategies may be developed to address the academic difficulties of students with disabilities taught in a coteaching

environment (De Boer et al., 2011; Srivastava, De Boer, & Pijl, 2017). Therefore, to improve any deficiencies identified within a school system, teachers' opinions of coteaching need to be evaluated. The independent variables were the general education teachers and special education teachers. The teachers' opinions of the benefits of inclusion, inclusive classroom management, and their ability to teach students with disabilities were the dependent variables.

Research Questions and Hypotheses

Based on Creswell's (2013) quantitative research approach for a nonexperimental design, the research questions posed for this descriptive-comparative quantitative study were unbiased and objective. The questions for this study addressed the overall opinions of general education and special education teachers regarding inclusion classrooms with coteachers. Teacher perceptions possibly influence teacher and student interactions (Tsiplakides & Keramida, 2010). Adverse opinions lower expectations and create an ineffective learning environment rather than one of academic success (Kornhaber, Griffith, & Tyler, 2014; Rosenthal & Jacobson, 1968).

Overall Research Question

Are general education and special education teachers' opinions of inclusion classrooms with coteachers as evidenced by the Opinions Relative to Integration of Students With Disabilities (ORI) scale different?

H_1: There is a statistically significant difference in general education and special education teachers' opinions of inclusion classrooms with

coteachers as evidenced by the Opinions Relative to Integration of Students With Disabilities (ORI) scale.

$H_{0(1)}$: There is no statistically significant difference in general education and special education teachers' opinions of inclusion classrooms with coteachers as evidenced by Opinions Relative to Integration of Students With Disabilities (ORI) scale.

The specific research questions for this study were as follows:

Research Question 1

Research Question 1 was as follows: Are general education and special education teachers' opinions of the benefits of inclusion classrooms with coteachers significantly different?

The hypotheses for Research Question 1 were as follows:

$H_{01:}$ There is no statistically significant difference in teachers' opinions of benefits of inclusion classrooms with coteachers as measured by the Factor I score of ORI.

H_{a1}: There is a statistically significant difference in teachers' opinions of benefits of inclusion classrooms with coteachers as measured by the Factor I score of ORI.

Research Question 2

Research Question 2 was as follows: Are general education and special education teachers' opinions of inclusive classroom management different in inclusion classrooms with coteachers?

The hypotheses for Research Question 2 were as follows:

$H_{02:}$ There is no statistically significant difference in the teachers' opinions of inclusive classroom management in inclusion classrooms with coteachers as measured by the Factor II score of ORI.

H_{a2}: There is a statistically significant difference in the teachers' opinions of inclusive classroom management in inclusion classrooms with coteachers as measured by the Factor II score of ORI.

Research Question 3

Research Question 3 was as follows: Are general education and special education teachers' opinions of their ability to teach students with disabilities different in inclusion classrooms with coteachers?

The hypotheses for Research Question 3 were as follows:

$H_{03:}$ There is no statistically significant difference in the teachers' opinions of their ability to teach students with disabilities in inclusion classrooms with coteachers as measured by the Factor III score of ORI.

H_{a3}: There is a statistically significant difference in the teachers' opinions of their ability to teach students with disabilities in inclusion classrooms with coteachers as measured by the Factor III score of ORI.

Research Question 4

Research Question 4 was as follows: Are general education and special education teachers' opinions of the academic and social growth of students with disabilities different in inclusion classrooms with coteachers?

The hypotheses for Research Question 4 were as follows:

$H_{04:}$ There is no statistically significant difference in the teachers' opinions of the academic and social growth of students with disabilities in inclusion classrooms with coteachers as measured by the Factor IV score of ORI.

H_{a4}: There is a statistically significant difference in the teachers' opinions of the academic and social growth of students with disabilities in inclusion classrooms with coteachers as measured by the Factor IV score of ORI.

A *t* test was performed to test for significant differences in the responses of the general education teachers and special education teachers concerning inclusion classrooms with coteachers. The independent variables were the general education teachers and special education teachers. The teachers' opinions of the benefits of inclusion, inclusive classroom management, and their ability to teach students with disabilities were the dependent variables. The significance level for the *t* test was $p < .05$.

Theoretical Framework for Study

This study focused on the factors that yield positive attitudes and opinions in addition to successful coteaching practices, as identified by researchers. A conceptual framework based on the working relationship between general education coteachers and special education coteachers was used. The theoretical basis for this study was Johnson and Johnson's cooperative learning theory (Johnson, Johnson, & Holubec, 2013). Johnson and Johnson's cooperative theory serves as an illustration of how theory substantiated by research applies to instructional practice. Their conceptualization of

cooperative learning is helpful in grasping how individuals interact with each other, which determines the outcome of their interactions.

Working in a joint effort to achieve common goals implies cooperative work among people. Individuals who participate in cooperative situations pursue results that are favorable to themselves and others within the group. In the context of an inclusive classroom, Johnson and Johnson's cooperative learning theory suggests that not only do students with disabilities and those without disabilities have to cooperate with one another, but also the general education and special education teachers must collaborate with each other. Teachers' cooperation with one another can serve as a model of the behavior expected of the students. Being able to learn together can have profound effects on students and teachers (Johnson et al., 2013).

Cooperative learning has five fundamental elements. These elements include the following: (a) positive interdependence, (b) accountability for individuals and groups, (c) relational and small group skills, (d) face-to-face promotive interaction, and (e) group processing. When comparing the five elements of cooperative learning to coteaching, coteaching becomes a pedagogical model as outlined by Johnson and Johnson's (Johnson et al., 2014) cooperative learning theory. General education and special education teachers who serve as coteachers use the five elements while actively engaged in teaching to provide effective instruction.

Johnson and Johnson's cooperative learning theory, which is used to understand positive interdependence, somewhat resembles Kagan's (2009) cooperative learning model. Whereas Johnson and Johnson cooperative learning theory can be applied to the

partnerships of the coteachers involved, Kagan's model focuses on the students. Kagan defined cooperative learning as a teaching agreement whereby small groups of various students work together to achieve a common goal. The students are responsible for each other's work as well as their own. Chapter 2 provides a more detailed explanation of Johnson and Johnson's cooperative learning theory.

Nature of the Study

A descriptive-comparison quantitative approach was used to determine if a significant difference existed between the opinions of general education teachers and special education teachers regarding inclusion classrooms with coteachers. Using a descriptive-comparison research design was appropriate because two groups of the independent variable were compared (Cantrell, 2011). The independent variables were general education teachers and special education teachers. In experimental research, the groups are created to test a particular variable. However, in descriptive-comparison studies, the groups have already been formed and any treatment, if necessary, has already been given (Johnson, 2000). Additionally, independent variables in descriptive-comparison studies are not manipulated (Schenker & Rumrill, 2004).

The research included Likert-scale items from the Opinions Relative to Integration of Students With Disabilities (ORI) scale (Antonak & Larrivee, 1995), a survey instrument used to delve into teachers' attitudes, opinions, and beliefs concerning inclusion classrooms with coteachers. The survey addresses the following four factors:

- inclusion classroom benefits,
- inclusive classroom management,

- perceived ability to teach students with disabilities, and
- special education in contrast to inclusive general education.

A *t* test was performed to determine the statistical significance of differences when comparing the responses from the survey between the two groups. Descriptive statistics were used to describe the general education teachers and special education teachers based on the demographic data collected.

The research study was conducted at three elementary, two middle, and two high school sites within the large suburban district. The elementary schools serve Grades Prekindergarten through 5 (PK-5), the middle schools serve Grades 6-8, and the high schools serve Grades 9-12. The population includes 111 general education coteachers and special education coteachers who teach in the inclusive setting. In Chapter 3, I further explain the nature of the study.

Operational Definitions

The following definitions apply to this study:

Ability to teach students with disabilities (DV): Teachers who have completed professional education programs based on established state standards and obtained a certificate in special education are considered to have the ability to teach students with disabilities (Georgia Professional Standards Commission, 2020).

Adequate yearly progress (AYP): The formula used to determine if schools and school systems are meeting standards. AYP consists of three parts: administration of reading/English and mathematics tests, academic performance in reading/English, and an additional indicator. The high school graduation rate and the attendance rate in

elementary and middle schools can be used as the additional indicator (Georgia Department of Education, 2015).

College and Career Ready Performance Index (CCRPI): The comprehensive school improvement, accountability, and communication platform that replaced the AYP formula. Ultimately, the CCRPI was designed to stimulate college and career readiness for Georgia students based on the Elementary and Secondary Education Act Flexibility Waiver granted to Georgia in 2012 (Georgia Department of Education, 2015).

Coteaching: When teachers share teaching responsibilities in inclusion classrooms that include students with and without disabilities, it is referred to as coteaching (Georgia Department of Education, 2012).

Every Student Succeeds Act (ESSA): As a result of ESSA (U.S. Department of Education, 2016), schools are held accountable for ensuring that all students, regardless of disability, meet or exceed standards. A previous version of the law known as No Child Left Behind (NCLB) was enacted in 2002 (U.S. Department of Education, 2016).

General education: For this study, students without disabilities who received their education in public schools classified as general education students (Browder & Spooner, 2006).

General education teacher (IV): A term that refers to general education teachers certified in the particular content area in which they teach. The Georgia Professional Standards Commission (PSC) requires teachers to pass a relevant content area assessment and complete an approved program. Additional activities identified in the High Objective

Uniform State Standards of Evaluation (HOUSSE) instrument must be completed by the teachers (Georgia Professional Standards Commission, 2012).

Individuals With Disabilities Education Act (IDEA): Through IDEA, students with disabilities receive ensured services. The way in which states and public agencies provide early intervention, services to children with disabilities, and special education is regulated by this act (U.S. Department of Education, 2016).

Inclusion: A situation in which most children, if not all, regardless of physical, mental, and developmental disabilities, are taught in the same environment. Inclusive education suggests that everyone has a right to an education that includes flexibility and adaptations to meet the needs of all (Vinodrao, 2016).

Inclusive classroom management (DV): A classroom management plan that establishes structure and routine in an inclusive setting. Generally, such plans are flexible and adjusted based on the diverse needs of the students (Eredics, 2019).

Individualized education program (IEP): A plan created, reassessed, and amended by Chapter 1414(d) for students with disabilities. An overview of a student's current academic levels, annual goals, objectives, and specific educational services is provided within an IEP (Osborne & Russo, 2014).

Least restrictive environment (LRE): LRE provisions require students with disabilities to receive their education with students without disabilities to the maximum extent appropriate, which usually occurs in the general education classroom (Osborne & Russo, 2014).

Perceptions: Perceptions are observations or opinions. Additionally, the definition of *perception* can include an individual's belief or general view formed in the mind about something in particular. Individuals' perceptions are judgments that they believe to be true (Bernhardt, 2015).

Professional development: A variety of educational experiences that are developed to improve practice and outcomes and that are related to a person's work can be referred to as professional development (Patton, Parker, & Tannehill, 2015).

Special education: Special education is specially designed instruction that provides special services and programs for students with disabilities (Siegel, 2004).

Special education teacher (IV): A term that refers to special education teachers certified in the particular content area in which they teach. The PSC requires teachers to pass the relevant content area assessment and complete an approved program. Additional activities identified in the HOUSSE instrument must be completed by teachers (Georgia Professional Standards Commission, 2012).

Students with disabilities: Those students who depend upon special education to meet individual learning needs and be successful in school. These students rely on special education to make AYP in school (Beattie, Jordan, & Algozzine, 2006).

Assumptions

An assumption was that the general education teachers and special education teachers completing the survey responded in an honest, truthful manner. Additionally, it was assumed that teacher participants had been trained on the implementation process of coteaching and had experience in teaching students with disabilities and students without

disabilities in the same environment. The study was also based on the assumption that coteaching was the instructional strategy used to teach students with disabilities in the LRE. Another assumption was that the teacher participants had a sincere interest in their participation of the study and were not seeking any compensation. Further, it was assumed the teacher participants were not trying to score well on their Teacher Keys Effectiveness System, the evaluation tool used by the state of Georgia.

Because *t* tests were used in the study, other assumptions existed. According to Maverick (2018), the first assumption involved in *t* test use is that the scale of measurement used for the collection of data follows a continuous or ordinal scale. Maverick went on to identify a second assumption, which is that the data will be randomly collected, giving each participant an equal probability of being chosen. Additionally, it is assumed that the plotted data will show a normal distribution with a bell-shaped distribution curve and that the sample size is large enough (Maverick, 2018). The last assumption associated with the use of *t* tests identified by Maverick (2018) is that homogeneity of variance exists because the standard deviations of samples are nearly equal.

Scope and Delimitations

The scope of this study focused on general education teachers and special education teachers within a selected Georgia school district. Delimitations of this study included the research topic itself. The topic was chosen with the anticipation of improving standards for general education teachers and special education teachers who work together in a coteaching setting. Additionally, the study included general education

teachers and special education teachers who may work in an inclusion classroom as coteachers at any time during the school year. Furthermore, the survey only included closed-ended Likert-scale responses rather than additional open-ended responses. The results of this study could be generalizable to special education and general education educators who teach in coteaching settings with students with disabilities in Georgia.

Limitations

Limitations within a study indicate potential weaknesses and are generally out of the researcher's control (Creswell, 2013). The following limitations were identified in this study. In the event that the study is replicated, these limitations should be taken into consideration.

1. The use of self-reported data is limited because it cannot be independently verified. Self-reported data may contain responses based on selective memory, telescoping, attribution, and exaggeration (Punch, 2013).
2. This study was limited because it took place within one specific region of a large, suburban school district. The study was limited to general education and special education coteachers.
3. Teachers might not have responded to the survey sent to their work e-mail addresses because it was not coming directly from a school administrator.
4. The survey used to collect data restricted the teachers from detailing their responses and providing greater insight on personal experiences, which could have changed data interpretation.

Significance of the Study

By identifying the opinions of general education teachers and special education teachers regarding inclusion classrooms with coteachers, it is possible to identify the teachers' opinions of the benefits of inclusion. Additionally, it is possible to determine their opinions about inclusive classroom management, their perceived ability to teach students with disabilities, and their view of special education in contrast to an inclusive general education. If there are differences between the opinions of general education teachers and special education teachers regarding inclusion classrooms with coteachers, then administrators, district-level personnel, teachers, and other stakeholders can identify areas of improvement in the implementation and use of coteaching. Furthermore, the outcome of this study may influence the district, particularly the department of special education, to conduct more in-depth research on the implementation and use of coteaching. The research could yield data to stimulate student growth, help determine how to minimize the achievement gap between students with disabilities and those without disabilities, and improve overall academic success. Students with disabilities, students without disabilities, general education teachers, special education teachers, and administrators will benefit from this study.

The potential contributions of the study include providing special education teachers and general education teachers with a more comprehensive understanding of their roles as coteachers by showing how inclusive classroom management and the ability to teach in the inclusion environment are perceived at different school levels. The potential contributions of the study to advance the practice of inclusion and coteaching

include providing school district personnel with a thorough understanding of the expectations and needs of the coteachers within inclusion classrooms, thereby aiding them in providing a more effective inclusion program for special education students and general education students. Additionally, school district personnel may offer useful professional development for general education teachers and special education teachers in regard to inclusion classrooms with coteachers. The implications for positive social change include using the opinions and attitudes of teachers in various decision-making processes to potentially identify ways to increase teacher success while improving student achievement in the general education and the special education populations. With emphases placed on teacher effectiveness and accountability, there is a critical need for studying teacher opinions (Petty, Good, & Handler, 2016).

Summary

The opinions of special education teachers and general education teachers toward teaching students with disabilities in an inclusion classroom with a coteacher or in a general education setting are essential in the progress of students. Teachers who view inclusion positively are in favor of working in coteaching environments (Loreman, Sharma, & Forlin, 2013). Some of the most discussed topics by teachers who positively view inclusion include teaching students with disabilities in an inclusive environment and the success of coteaching. Over the years, the number of students with disabilities serviced through coteaching has increased significantly (McLeskey & Waldron, 2011).

In Chapter 2, I examine the literature and groundwork on coteaching. Additionally, Chapter 2 illustrates the identified benefits and barriers of various

coteaching models from current research. Several studies have focused on the elements of both successful and unsuccessful coteaching models.

In Chapter 3, I introduce and describe the methodology behind the research. This chapter also contains a description of the study and the rationale for choosing a quantitative research design. Additionally, the chapter includes an explanation of how and why the participants were selected for the study and how data were collected and analyzed. Ethical procedures and confidentiality of data are also discussed in Chapter 3.

In Chapter 4, the steps taken in the collection of data and the analysis of the data are presented. The research results are disclosed. Lastly, Chapter 5 provides a summary of the study. Additionally, it focuses on the conclusions and recommendations for future research on inclusion classrooms with coteachers.

Chapter 2: Literature Review

The problem of interest in this research study was that students with disabilities taught in inclusion classrooms with coteachers had low scores on standardized tests even though there were two certified teachers in the classroom. The data from the district's 2014, 2015, and 2016 CCRPI reports showed that no elementary or middle school students with disabilities taught in the general education classroom within the district met the performance targets identified for the state or subgroup. The high schools within the district met the subgroup target but did not meet the state performance targets for students with disabilities for those 3 years as well. The purpose of this quantitative research study was to investigate whether differences in opinions exist between general education teachers and special education teachers regarding inclusion classrooms with coteachers in a suburban Georgia school district.

Chapter 2 begins with the historical foundation for coteaching to provide in-depth knowledge of influences on special education and its legislation. The chapter continues with the investigated research conducted as a result of the inclusion movement. I also discuss coteaching and the various models associated with this delivery method often used to serve special education students (Conderman, 2011; Conderman & Hedin, 2012; Embury & Kroeger, 2012; Goodman, Bucholz, Hazelkorn, & Duffy, 2014; Friend, 2014; Lindeman & Magiera, 2014; Tremblay, 2013; Walsh, 2012). Additionally, the benefits and barriers of inclusion models used to educate students with disabilities and general education students are examined through the research of Alper, Schloss, Etscheidt, and MacFarlane (1995); Baglieri and Shapiro (2012); Cameron (2014); Chakraborti-Ghosh,

Orellana, and Jones (2014); and Crockett and Kauffman (2013). The significance of the literature to the study is also revealed.

First, the literature review addresses the literature review search strategy, theoretical foundations for the study, history of special education, and LRE. The literature review also contains discussion of coteaching, general education model, teacher attitudes and perceptions, and professional development. Other areas covered in the review include diversified models and strategies affiliated with the successful implementation of inclusion.

Literature Review Search Strategy

The key words and phrases used to locate information for the literature review were found by researching topics dealing with cognitive development theory, teacher perceptions, teacher preparation, special education, coteaching, inclusion, the general education model, and professional development, and teachers. Predetermined criteria were used to compile information for the literature in an effort to support the purpose of the study, which was to determine whether differences in opinions exist between general education teachers and special education teachers regarding inclusion classrooms with coteachers. To provide a succinct overview of topics related to the study, peer-reviewed journal articles, theoretical frameworks, research-based studies, full-text articles, and books relating to quantitative research were used. The literature was found using online resources from the Walden University Library and the University of Phoenix Library such as ProQuest, Galileo, Academic Search Premier, and Education Resource Information Center (ERIC). Additionally, Google Scholar Citations were used to see the

studies and publications recently cited and to discover other studies not located through other searches. Materials were used from several local university libraries and the county public library. The following key words and phrases were used to conduct the research: *barriers of coteaching*, *benefits of coteaching*, *coteaching*, *inclusion*, *least restrictive environment*, *mainstreaming*, *professional development*, *special education*, *special education law*, *special needs*, *students with disabilities*, *teacher perceptions of coteaching*, and *teacher preparation*.

Albert, Laberge, and McGuire (2012) pointed out that research from peer-reviewed journals is assessed by experts and the results reported within the journals are more than likely to be original. Therefore, peer-reviewed articles were preferred as I selected studies. Other criteria used for the selection of the research articles included full-text documents and a maximum publication date within the last 5 to 7 years.

Theoretical Foundations

The theoretical framework for this study was Johnson and Johnson's cooperative learning theory (Johnson et al., 2014). Johnson and Johnson's cooperative learning theory serves as an illustration of how theory substantiated by research applies to instructional practice. Working in a joint effort to achieve common goals implies cooperative work among people. Individuals who participate in cooperative situations pursue outcomes favorable to themselves and others within the group. Cooperative learning has five fundamental elements. The elements are the following: (a) positive interdependence, (b) individual and group accountability, (c) interpersonal and small group skills, (d) face-to-face promotive interaction, and (e) group processing. When comparing the five elements

of cooperative learning to coteaching, coteaching becomes an instructional model under Johnson and Johnson's cooperative learning theory (Johnson et al., 2014). General education and special education teachers who serve as coteachers use the five elements while actively engaged in teaching to provide effective instruction. Johnson and Johnson's cooperative learning theory has been applied in similar studies such as Dyson and Plunkett (2012). In terms of individual accountability, cooperative learning refers to individuals assuming responsibility for completing their own part of the task for the group (Dyson & Plunkett, 2012). Furthermore, cooperative learning involves providing instruction allowing the student to receive more actual learning experiences and actively participate, which encourages students to learn complex content.

The scholarship of teaching and learning abounds with examples of various nontraditional approaches and strategies such as cooperative and team-based learning (Johnson et al., 2014). Social interdependence theory is the major theoretical base for cooperative learning. Johnson et al. (2014) noted that numerous research studies have validated social interdependence theory and demonstrated that cooperative learning increases students' aspirations to achieve, encourages positive relationships with other students and teachers, and enhances psychological health and wellbeing. For example, in 1989, Johnson and Johnson conducted a meta-analysis of 575 experimental studies and found that significant performance is promoted by cooperation rather than competitive or individualistic approaches (Johnson et al., 2014). In an examination of 158 studies, Johnson and Johnson determined that cooperative learning produces significant achievement.

The History of Special Education

There are two reasons for assigning special education students to the general education classroom. One reason is to satisfy the requirements of IDEA (U.S. Department of Education, 2003). IDEA necessitates that students with disabilities are educated in the LRE. Another reason is to allow students with disabilities exposure to the curriculum in the general education setting with the goal of producing adequate student outcomes (Fuchs et al., 2015). For many special education students, the most appropriate environment is alongside their peers in the regular classroom (Siegel, 2004). The ESSA of 2015 was signed by President Obama to reauthorize the Elementary and Secondary Education Act (ESEA; U.S. Department of Education, 2016). Schools are held accountable through ESSA for making certain that all students, including those with disabilities, meet or exceed standards. A previous version of the law was known as NCLB, which was enacted in 2002.

Osborne and Russo (2014) referenced the Rehabilitation Act of 1973 as the foundational federal civil rights law guaranteeing the rights of people with disabilities. Section 504 of the Rehabilitation Act of 1973 allows the right for qualified individuals in the United States, regardless of their disability, not to be discriminated against or denied when participating in federally funded programs and activities, including public education. This act covers people with current or past physical or mental disabilities that interfere in day-to-day activities.

In 1975, Congress signed legislation requiring eligible students with disabilities to receive services appropriate to their special education needs. The complexity of public-

school education changed with this new law, referred to as Public Law 94-142, the Education of All Handicapped Children Act. Two new provisions of the law had the most significant impact. They were as follows: (a) all handicapped children receive a free and appropriate education, and (b) affected children must receive their education in the LRE (Osborne & Russo, 2014). Other provisions brought about effects on the public education system. For example, one provision mandated the use of nondiscriminatory evaluation procedures to identify students with disabilities by assessing all areas related to the presumed disability (Mamlin & Harris, 1998). Another provision required any student identified as a candidate for special education services to have an IEP. The IEP is created, reassessed, and amended in accordance with section 1414(d) for students with disabilities. The IEP provides an overview of a student's current academic level, annual goals, objectives, and specific educational services that the student is to receive (Osborne & Russo, 2014).

President Clinton signed into law the Individuals with Disabilities Education Act Amendments of 1997 (IDEA '97), and it was scheduled for reauthorization every 3 years. The provisions made during this time proved to be the most significant changes in federal special education law (Patterson, 2005). The law was amended and reauthorized in 1997, placing emphasis on six fundamental principles and key components of special education programs extended to those with disabilities: a free and appropriate public education, an individualized education program, the LRE, appropriate evaluations, collaboration from parents and students in the decision-making process, and procedural safeguards. In addition, IDEA '97 addressed issues in regard to discipline for students with disabilities.

Patterson (2005) suggested that classroom teachers have an important responsibility of being aware of the foundation, practice, and relevance of educational legislation in relation to students. Patterson further discussed the six fundamental principles from IDEA ’97. All students are privileged to a free and appropriate education (FAPE). School systems and their educators have the primary responsibility for following the regulations regarding FAPE. Therefore, they should know the procedural and indisputable requirements to avoid problems (Patterson, 2005). Under FAPE, students with disabilities receive IEPs. IEPs ensure that students with disabilities receive services specific to their needs. The IEP is considered a centerpiece of the special education process. School officials and parents collaborate on the details of the IEP and the implementation of the IEP. Patterson pointed out one of the main goals of meeting to discuss an IEP is to develop collaboration among parents, teachers, and other school officials.

The creation of an IEP involves seven steps: prereferral, referral, assessment, qualifying, development of the IEP, implementation of the IEP, and the annual review. The prereferral process is an earlier identifier and major component of the IEP process. This informal, problem-solving process has two primary purposes: (a) providing prompt instructional and behavior management to students and teachers and (b) decreasing the likelihood of identifying a student without disabilities for special education (Patterson, 2005). Using the prereferral process can limit the possibility of falsely identifying children as possessing disabilities and increase opportunities for children who do have disabilities and are in need of special education services. From the start, parental consent

is necessary for all evaluations and placement decisions in special education. Throughout this process, the teacher plays a leading role. The teacher has influence over changes and placement for students.

The referral process takes place when a child is recommended to receive special education services. If students are demonstrating poor academic performance in comparison to their peers or are misbehaving and disrupting the learning environment, they are ideal candidates for a special education referral. To facilitate the referral step, teachers should have current knowledge of various disabilities, including learning, emotional, and behavioral disabilities. Teachers should also be aware of early identification, prevention, and intervention strategies (DuPaul & Stoner, 2014).

The evaluation process includes determining whether a child has a disability, assessing the need for special education, and identifying the classifications of special or related services that the child requires. Tests must be unbiased and administered in the child's first language. The IEP team carefully examines measurable annual goals, short-term objectives, and benchmarks. The team makes modifications as needed to the child's academic placement, including support services.

IDEA '97 provided definitions for the various special education subgroups; however, each state is responsible for establishing definitions within federal guidelines. Once the IEP team rules that a child has a disability, it is determined whether special education services are needed. Prior to the passage of IDEA '97, most suggestions for the improvement of IEPs focused on increased professional development and improved quality assurance (Huefner, 2000; Obi, 2015).

IDEA ’97 specifies the people who make up the IEP team. An IEP team should include a minimum of one general education teacher and one special education teacher or related service provider, a school district official, the parents and their guests, and possibly the student. Assessment results help in decisions regarding appropriate education, services, and placement. The ultimate focus of the IEP should be on the unique needs of the student with disabilities, while the components of the IEP establish clear relationships. At minimum, the IEP should include the student’s present academic performance levels and indicators of how the student’s disability directly affects participation and progress in the general education setting (Roosevelt, 2015). In addition to those requirements, the IEP includes measurable goals and specific educational services to provided, including accommodations and modifications. Other minimum requirements include the following:

- an explanation the extent to which a child will not be a part of general education classes;
- estimated date of initiation and the length of services;
- an annual statement of transition needs and cross-check responsibilities to ensure the continuance of services when the student exits the program; and
- a statement outlining how the student’s progress will be documented and how parents will be notified of such progress.

Preservice and beginning teachers tend to follow procedures that are in place or that have been defined by an administrator or lead teacher (Kleyn & Valle, 2014). Therefore, to avoid a noteworthy problem, teachers must understand how and when a

legal IEP is written. A legal IEP is written before a placement decision is made, following the evaluation and identification of a student's disability. Basing the IEP on available placement is wrong, illegal, and seen quite often. Considering a student's placements or services first rather than creating an IEP causes this to happen.

In December 2004, the reauthorization of IDEA was signed into law and went into effect on July 1, 2005 (U.S. Department of Education, 2006). The reauthorization drastically altered the continuum of programs that educators must provide to students with disabilities. According to Osborne and Russo (2014), more litigation was generated due to IDEA than by any other educational legislation in American public schools' history. A component that has drawn much attention has been the parameter of the LRE.

Least Restrictive Environment

Although the revisions of the IDEA of 1997 and 2004 did not require students with disabilities to be served in general education classrooms, the intention was for those students to be included in such classrooms as much as possible. These revisions maintained the LRE provision, language, and intention. The provision of education for students with disabilities in the LRE is one of the most important themes throughout IDEA. In the legislative aspect, LRE is defined as the setting in which students with disabilities receive their education with students without disabilities to the maximum extent appropriate with the use of supplemental aids and services (Least Restrictive Environment 34 CFR 300.550 (b) (2)). The performance goals related to LRE are as follows:

- Lessen the amount of special education students who withdraw from school.

- Maximize the number of students with disabilities who receive a general education diploma.
- Reduce the disparity in the performance of students with and without disabilities on statewide achievement tests.
- Expand the amount of time that students with disabilities receive instruction in the LRE with appropriate resources and accommodations (Georgia Department of Education, 2010b).

The state under study has three levels of support to consider when determining the LRE for students with disabilities. They are accommodations and modifications, settings, and personnel support. Accommodations are adjustments to activities, instruction, materials, or the setting and do not weaken the curriculum and the State Performance Standards (GPS). Modifications tend to require less of the student than the minimum Georgia Performance Standards. Additionally, there are many changes to products, assessments, or materials. LRE settings deal with accessibility issues for students with physical disabilities. Personnel support is the additional special education personnel in the LRE to provide required support or instruction to students with disabilities (Georgia Department of Education, 2010b). Although the LRE is mainly for students with disabilities, it does involve the general education population, including the general education teacher. Often times the LRE for students with disabilities is full day or partial day participation in general education classes with general education students (Erickson & Davis, 2015).

In 2012, Georgia received a waiver from NCLB. The waiver allows Georgia to set performance targets instead of using the Annual Measurable Objectives (AMOs) used under AYP. The waiver also allows Georgia to identify schools as priority, focus, or reward schools based on their academic achievement in all content areas instead of just reading and mathematics as in the past with NCLB. Georgia implemented a new statewide accountability system, the College and Career Ready Performance Index (CCRPI), during the approval time of the waiver. Important indicators of the CCRPI include the following:

- Percentage of elementary students with disabilities served in general education environments greater than 80% of the day.
- Percentage of middle school students with disabilities served in general education environments greater than 80% of the school day.
- Percentage of first time ninth grade students with disabilities earning three credits in ELA, mathematics, science, or social studies and scoring proficient or higher on all required Georgia Milestones End of Grade assessments.

Inclusion

Opportunities for students with disabilities to be educated in the general education classroom increased as a result of the Individuals with Disabilities Education Act and No Child Left Behind. As a result, the accountability of general educators for the progress of these children increased (Goodman et al., 2014). An inclusive education or inclusion often refers to students with disabilities serviced in the general education classroom. Lindeman and Magiera (2014) define inclusion classroom as a place where “all children

are educated together and they are included regardless of the differentiation or remediation needed" (p. 14). Modifications for students with disabilities are made based on the student's IEP. Furthermore, the students' placements are in chronological age-appropriate-general education schools and classes. The current law mandates the public and private sectors of education must educate students with disabilities in the same manner as those without disabilities. Removal from general education should only take place if students cannot excel with the use of supplementary aids and services; therefore, Kurth and Gross (2014) concluded inclusion is a physical placement. A distinction exists between full and partial inclusion. Students with disabilities receive all of their education in the general education setting in full inclusion. Partial inclusion suggests students are educated in both the general education and special education settings (Kurth & Gross, 2014). Regardless of the type of placement, the time spent in these environments differ based on the individual students' educational goals and objectives. When general education teachers and special education teachers teach in an inclusion classroom as coteachers, they are agreeing to collaborate.

The effective collaboration of special education teachers and general education teachers in coteaching classrooms can promote the successful inclusion of students with disabilities in coteaching environment. Collaboration in education suggests professionals equally establish goals and identify steps to achieve those common goals (Lindeman & Magiera, 2014). Those teachers involved in effective collaboration share resources and the decision-making responsibility, in addition to shared responsibilities for the outcome. Even though various collaborative structures are used (e.g., one-on-one interactions,

coteaching, collaborative consultation), successful collaboration demands planning time, application, and support from the school's administration.

Prior to 1975, including students with disabilities in classes with their non-disabled peers did not occur on a regular basis in most schools in the United States. When law mandated students with disabilities spend as much of their school day as possible in the same instructional and extracurricular activities as their peers without disabilities, inclusive practices became more feasible to educate students with disabilities in the general education classroom (Kurth, Marks, & Bartz, 2016). Before the term inclusion came into play, early efforts to include students with disabilities in general education classes were known as mainstreaming. Mainstreaming was the placement of choice for many students with disabilities during the 1970s and 1980s (Beattie et al., 2006).

When teachers, parents, and other professionals observed students with severe disabilities excluded and segregated, mainstreaming became inclusion (Beattie et al., 2006). Presently, the special education practice of choice in most school districts is inclusion (Obiakor et al., 2012). The number of students with disabilities Ages 6 through 21 served in general education classes has continually increased. According to the U. S. Department of Education (2001), during the 1984-85 school year, only one-quarter of students with disabilities received assistance outside the general education classroom less than 21% of the school day. That percentage increased to almost half by 1998-99. Currently, nearly all students with disabilities are in general school buildings (U.S. Department of Education, 2001, p. III-2). Inclusion, or serving students within the general education setting, has numerous benefits.

Benefits of inclusion. Inclusion classrooms with coteachers have gained support due to the accessibility of the general education curriculum, higher expectations of students with disabilities and increased social interactions and relationships among all students involved (Forrester, 2016). Aside from legal reasons, a significant amount of beneficial reasons exists for including students with disabilities in the general education setting. Many of the reasons for including students with disabilities in the general education setting address the needs of students with disabilities; however, there are also a number related to those students without disabilities. For example, students in the general education setting rarely interacted with students with disabilities in the past (Cameron, 2014). General education students have the chance to develop an admiration for the intricacy of human attributes through inclusion (Alper et al., 1995; Baglieri & Shapiro, 2012). Alper and her associates (1995) also suggest inclusion may cause students without disabilities to develop an appreciation for individual differences while realizing diversity in an inclusive setting adds richness to the education experience. In general, the students without disabilities will learn about various handicapping conditions.

Providing favorable circumstances for students with disabilities to learn through communication with students without disabilities is another major advantage of inclusion. Students with disabilities may be motivated to engage in extra-curricular activities (e.g. sports, clubs, organizations, etc.) because their nondisabled friends are involved. Students who are allowed to receive their learning in an inclusive environment are likely to benefit from the stronger norms vested by their peers (Alper et al., 1995; Crockett & Kauffman, 2013).

Inclusion has become a worldwide concern in terms of whether it benefits all students involved. In the United States, the focus of inclusion is to place students in the least restrictive environment in hopes of improving student achievement, acceptance by peers, and self-esteem (Chakraborti-Ghosh, Orellana, & Jones, 2014). Chakraborti-Ghosh et al… conducted a study to explore the differences in philosophies and perceptions of inclusion classrooms between United States teachers and Brazilian teachers. Classroom and school observations were conducted using a mixed-methodology approach. The results showed the philosophy of inclusion differed between the two sets of teachers. The Brazilian teachers' interpretation was not completely related to students with disabilities being serviced in the general education classroom by two teachers, but an education for all students involved. However, the teachers did agree inclusion classrooms benefitted the students' social skills.

Lee, Yeung, Barker, Tracey, and Fan (2015) collected quantitative data from 461 preschool teachers about their perceptions of five influential factors of inclusion viewed as benefits. Those influential factors include teamwork, curriculum, school support, government support and the attitudes of stakeholders. The overall theme of the study suggests one of the greatest benefits in inclusion is the teacher. When teachers receive proper professional development, they are stronger advocates of inclusion regardless of their roles. Although inclusion has many benefits, there are also some barriers.

Barriers of inclusion. In the quest for inclusion, barriers do exist. Teaching students with disabilities in an inclusive environment is a complicated and disputable topic and tends to create intense debate among the various stakeholders (Angelides,

2012). Critics of inclusion argue including students with disabilities in the general education setting is too costly, is problematic to students without disabilities and the entire education process, while providing students with disabilities an unfair advantage over those without disabilities (Cawley, Hayden, Cade, & Baker-Kroczynski, 2002; Jaeger & Bowman, 2005). Bricker (2000) added to the list of inclusion barriers by comparing early inclusion programs to current issues confronted by present day early intervention approaches. Furthermore, Bricker did find some educators as well parents, did not believe in the concept of inclusion. Some educators viewed inclusion as a tool to eliminate support and resources from students with disabilities. There were inclusion programs without properly trained staff or resources to accommodate the needs of students with disabilities, and an increase in national controversy associated with inclusion practices (Bricker, 2000).

Muccio, Kidd, White, and Burns (2014) conducted a study that examined the perspectives and practices of instructional professionals regarding inclusion while considering the barriers of successful inclusion. The researchers used a cross-sectional survey design along with direct observations to collect data from 71 participants. Although the analysis revealed positive attitudes towards inclusion, it also revealed more is needed for successful inclusion. The instructional professional alone is a potential barrier to inclusion being as he or she is at the center of the inclusion classroom environment. According to Muccio et al. (2014), the instructional professional should participate in professional development to increase their knowledge and skills in the area

of inclusion. Furthermore, the class environment, the lack of professional development, the instructional professional's knowledge and skills can act as barriers.

Similar to the study conducted by Muccio et al. (2014), the study conducted by Odongo and Davidson (2016) showed the attitudes, perceptions, and concerns of teachers can be barriers in the inclusion classroom. Like the study conducted by Muccio et al. (2014), the results from Odongo and Davidson's study indicated teachers do have a positive attitude towards inclusion, but positive attitudes alone are not enough for inclusion to be successful. The purpose of Odongo and Davidson's study was to bring awareness among teachers, districts, policy makers, and other stakeholders regarding the various barriers teachers face in the inclusion classroom.

Odongo and Davidson (2016) used a survey to measure the relationship between teachers' years of experience with inclusion and teachers' attitudes, perceptions, and concerns regarding inclusion. The results of the survey suggested the lack of resources were a significant concern for teachers and a major barrier to the successful implementation of inclusion. Consequently, Odongo and Davidson suggest teachers should be provided with quality information in the beginning regarding the range of available resources so they are able to support students with disabilities. Additionally, professional development and ensuring teachers are a part of the decision-making process are necessary in having a successful inclusion environment.

Angelides (2008) conducted a qualitative study to investigate the nature of inclusive education. The data collection process consisted of open-ended initial interviews, observations, follow-up interviews, and field notes with student teachers. The

10 fourth-year students from the School of Education were used based on their willingness to participate, their having previously participated in another project on inclusive education, and the agreement of the administrators of schools and the teachers of classes where they were completing their student teaching. The most important barrier revealed from the study was the technical knowledge needed to deal with certain students with disabilities or to deal with a group of children. In addition, Angelides (2008) found the cultures of the schools' educators have training in and the values and beliefs of the student teacher and lead teacher act as barriers. Angelides (2008) pointed out in this study many researchers have discussed overcoming factors seen as barriers to inclusion.

In many instances, teachers lack the support of building administrators when implementing coteaching in inclusive environments (Kritikos & Birnbaum, 2003). When administrators do not recognize the value in providing coteachers with common planning time, teachers are not able to collaborate. Forcing teachers to work together can also prevent the growth of a quality inclusive education that includes coteaching. Cook and Friend (2010) suggested that it is important to pair teachers together for a suitable fit. Teachers who differ in teaching styles, common goals, or shared beliefs are not a suitable fit and effective collaboration is difficult. Collaboration is more successful when teachers are given a choice to work with one another (Scruggs & Mastropieri, 2017). Alternative studies conclude that forcing a coteaching relationship may not necessarily produce a more cohesive coteaching experience. As part of the Kansas Co-Teaching Initiative, Villa and Thousand (2016) surveyed 275 teams of coteachers. The study found that no statistically significant difference existed between the arranged teams and those teachers

who volunteered. Villa and Thousand (2016) suggested that most research finds that teachers are not in support of coteaching unless they have a positive experience, therefore, administrators should establish coteaching as an expectation.

Lee, Yeung, Tracey, and Barker (2015) suggested using student outcomes and the perceptions of students and teachers to determine the effectiveness of inclusion is unclear. Barriers of inclusion are overcome by the identification and addressing of the barriers and practitioner research. Inclusion created a problem for general education teachers who considered themselves unprepared for the integration of special education students into their traditionally homogeneous classrooms. According to Scruggs and Mastropieri (2017), coteaching became the required new instructional model in to inclusion.

Coteaching

Across the country, school districts are changing, while increasing complexity and diversity, as a result of federal legislation. School accountability for the performance of students with disabilities increased due to No Child Left Behind (NCLB) and IDEA required the inclusion of students with disabilities to have access to the general education curriculum (U.S. Department of Education, 2006). Implementing these laws has caused a significant number of students with disabilities to receive education in the general education classrooms. Many school districts have chosen to work toward inclusivity and individualization by using inclusion as an instructional strategy (Embury & Kroeger, 2012).

Coteaching is an approach used for handling the different challenges in dissimilar classrooms where students with and without disabilities are served (Lindeman & Magiera, 2014). Generally, coteaching is usually the first used special education service delivery model and it allows students with disabilities to receive specific designed instruction required to improve specific skill deficits (Friend, 2014). In this service delivery model, there are four basic characteristics. One of the main characteristics in coteaching is having two qualified teachers, a general education teacher and a special education teacher, working together. Other characteristics include teaching done by both teachers, a heterogeneous population of students who are students with disabilities and students without disabilities, and a shared classroom (Tremblay, 2013). Coteaching done well is comparable to either a strong marriage or a blind date (Wilson, 2008; Conderman & Hedin, 2012). In the strong marriage the partners share and plan, reflect, and change. The blind date refers to the coteachers anxiously waiting the school year to be over. In order for coteachers to provide the appropriate services to their students, they must equally serve as content and process specialists.

Walsh (2012) noted coteaching has acted as a shared responsibility to more restrictive special education models for supporting students with disabilities over the past 20 years. Both quantitative and qualitative research have consistently revealed students in a co-taught environment learn more and perform better on assessments than those students in more restrictive service delivery models (Walsh, 2012). Ashton (2014) conducted a qualitative study to examine coteaching using a framework designed to

understand power differentials in educational settings. The framework looked closely at initiation, benefit, accountability, representation, and legitimation.

Over a one-month period, Ashton (2014) collected data through video recorded observations of the two teachers in the coteaching class. Ashton analyzed data by applying a framework for understanding power differentials in educational environments. The findings revealed the coteachers accepted dominance and separation of the traditional general educational model of instruction. Their actions reflected their perceptions of what it meant to be special education and general education teachers, which prevented them from being inclusive coteachers. The researcher concluded the influence of the state mandated curriculum and chief general education discourse reflects a larger culture where currently, through federal education legislation, standardization and uniformity are privileged.

In a coteaching relationship, there is often one coteacher, usually the general education teacher, who is the primary instructor and presenter for the entire class, whereas the other coteacher takes on a minimal supportive role (Magiera & Zigmond, 2005). One of the disadvantages of coteaching is one coteacher, generally the special education teacher, thinks they are less important (Austin, 2001; Strogilos & Tragoulia, 2013). Strogilos and Tragoulia's (2013) qualitative study supported this in their findings through interviews and descriptive observations. To eliminate some of the bad feelings, Wilson (2008) suggested some meaningful activities for coteachers to implement while the other coteacher is presenting whole-class instruction. The activities are as follows:

- Graze. In this activity, the coteacher helps with classroom management and overseeing student performance. In other words, the coteacher keeps an eye on the learning environment while interacting briefly with students.
- Poke, Prod, and Cue. This activity focuses on student performance. The coteacher will assist students with staying on task.
- Land and Target. The landing phase allows the coteacher to look closely at a student's work for quality while clarifying points of the lesson. Targeting provides the coteacher an opportunity to reteach concepts, simplify examples, or illustrate the procedures.
- Pair up or form a mini-group. Pairing up allows the coteacher to sit next to a student and provide guided, individualized instruction on the material being taught by the lead coteacher. When forming a mini-group, the coteacher takes a group of struggling students and provides a more individualized mini-lesson on the topic.
- Observe student behaviors, student questions and responses, and the presenting Coteachers' questions. The observation of student behaviors allows the coteacher to keep a record of the student behaviors and the demands of the tasks. Observing student questions and responses allow the coteachers to analyze the student response rates and make the necessary changes during instruction so students can respond or ask questions. When the coteacher observes the presenting coteacher's questions, the coteachers can scrutinize the questioning data and adjust the instruction as needed.

- Think of adaptations and modifications. During this time, the coteacher should consider how adaptations and modifications could have generated success for students and incorporate the ideas during co-planning.
- Interject a Different Point of View. Coteachers should discuss various strategies on how to approach the same problem, various ways of solving a problem, or different views on the topic.
- Verbalize Possible Confusion. The non-presenting coteacher asks questions to help students clarify the concepts in the lesson. This also helps those students not asking questions but experiencing some level of confusion. (Wilson, 2008, pp. 240-242; Conderman & Hedin, 2012)

Co-planning, co-instructing, and co-assessing are the three components of coteaching (Conderman & Hedin, 2014). In the co-planning component, the general education and special education teachers actively participate in developing instructional methods, materials, assessments, and accommodations and modifications for students with diverse learning needs. When co-planning both teachers should consider the following statements: (a) Break up the load so both teaches will benefit. (b) Find strengths and weaknesses of the teachers (c) Identify strategies to help our students increase their behavioral and learning skills. (d) Address students who are high-, average-, and low achieving. (e) Determine how the lessons can meet the visual, auditory, kinesthetic, processing, and behavioral needs of students (Conderman, 2011).

Teaching students with disabilities in an inclusive environment and the effectiveness of coteaching are some of the most discussed topics. McLeskey and

Waldron (2011) suggested the number of students with disabilities exposed to coteaching has increased significantly. The push to implement common standards known as the Common Core State Standards Initiative within districts could potentially inflate the population of students with disabilities within an inclusive environment. This initiative's goal is to "provide a consistent framework to prepare students for success in college and/or the 21st century workplace" (Georgia Department of Education, 2015, para. 1).

During co-instructing, the general and special education teachers implement instructional strategies they both developed during the co-planning phase. Six coteaching models exist; however, coteachers should use the approach that best matches the instructional objective and the teachers' content area of expertise. Both the general and special education teachers should experience both the lead and passive instructional roles (Conderman, 2011). In the co-assessing component, the coteachers use a reflective approach to analyze the effectiveness of their instructional efforts by meeting, gathering student data from grades and behavior reports, and soliciting input from other stakeholders, including the parents and the students.

Coteachers may need guidance initially in their professional relationship to aid their efforts (Allen, Perl, Goodson, & Sprouse, 2014). The guidance can come from an administrator, mentor, or team. Coteachers may start by defining their beliefs on teaching, learning, classroom management, and other factors they think are necessary (Friend & Cook, 2007; Van Garderen, Stormont, & Goel, 2012). Utilizing various inventories to identify each person's strong points and other associated responsibilities can guide the initial collaboration for coteachers. An inventory provides a fundamental

communication and planning tool. Some agree coteaching allows equal partners to combine their abilities to support the learning of students with disabilities in the general education classroom. However, when coteachers do not respect the collaboration style of each other, a compromise in the potential of coteaching takes place (Friend & Cook, 2007; Van Garderen et al., 2012).

Conderman (2011) expressed coteaching is a way to accommodate the different challenges in diverse classrooms. He further suggests in the coteaching environment, the two or more educators who collaborate to deliver instruction combine their expertise, share resources, and develop common instructional goals. Principles such as teachers working in agreement, sharing leadership roles to complete tasks, and practicing effective communication skills layer the foundation of coteaching. According to Conderman (2011), coteaching is popular for numerous reasons. The Individuals with Disabilities Education Act (IDEA) holds schools to a high accountability for all students and ensures students have access to the general education curriculum while in the general education setting. Under the Every Student Succeeds Act (ESSA), there are similar provisions requiring all students to receive instruction from highly qualified teachers. Schools can meet these ESSA provisions through coteaching, which allows general education and special education teachers to collaboratively plan and deliver instruction for all students. Conderman pointed out teachers have a more collaborative role and they do not work in isolation as in the past. The example he provided deals with general educators taking a more active role in the development of an individualized education plan (IEP) outlining

the appropriate accommodations and modifications students need to be successful in the general education environment.

Coteaching is becoming a widely used instructional model for servicing students with disabilities in inclusion classrooms. However, there is limited literature on the effectiveness of coteaching (Tremblay, 2013). To determine if coteaching was effective, Tremblay examined and compared two instructional approaches for students with disabilities. The instructional approaches were coteaching in an inclusive classroom and solo teaching in a self-contained special education classroom. The study involved 12 inclusion classrooms and 13 solo-taught special education classes and was designed to measure the effect of both models on student achievement based on test data. Ultimately, the inclusion model proved to be more effective compared to a solo-taught special education classroom. An analysis of the data showed students with disabilities received the necessary support in inclusion classrooms for standardized tests. Tremblay indicated further research is needed to evaluate the effects of coteaching and solo teaching over a long period of time and the sustainability of each model.

Solis, Vaughn, Swanson, and McCulley (2012) implied inclusion and coteaching relate specifically to developing programs for students with disabilities. Therefore, by researching both inclusion and coteaching will provide useful information to schools focusing on teacher cooperation within schools as it relates to improving student outcomes. The most typical model for implementing inclusion according to Solis et al. (2012) is when the general education teacher provided the majority of the instruction and

the special education teacher supported the students and made suggestions to the teachers. The coteaching approach includes several models.

Models of Coteaching

Friend (2016) identified six approaches to coteaching to use in the collaborative and co-taught settings. The six coteaching models are: one teach, one observe; one teach, one assist; team teaching; station teaching; parallel teaching; and alternative teaching. The coteaching models are for both whole and small group instruction. The fundamental factor for productive and adequate coteaching is reducing the student to teacher ratio (Georgia Department of Education, 2010a).

In the first coteaching model, one teach, one observe, one teacher is responsible for the entire class, including the discipline and instruction. The teacher who is observing is gaining important information on students. Like the first model, the model, one teach, one assist, one teacher manages the entire class. The difference in this model is the assisting teacher moves about the classroom to help students and redirect their attention if necessary. Team teaching is another model of coteaching. This model is composed of two certified teachers providing whole-class instruction. The general education and special education teachers both have joint responsibilities for teaching and assessing all students. Station teaching, the fourth approach to coteaching, involves a rotation. Students rotate between independent or teacher-directed activities, usually in small groups. This model allows information to be broken down into smaller chunks. The fifth approach to coteaching is parallel teaching, the division of the class into two even groups while the teachers teach the same content simultaneously. Alternative teaching is the sixth

approach to coteaching. When using alternative teacher, one teacher pulls a small group of students to instruct while the other teacher provides instruction to the larger group. This approach provides enrichment, missed information, a preview of new material, or specialized instruction to students with disabilities (Barger-Anderson, Isherwood, & Merhaut, 2013; Friend, 2016;).

A qualitative study conducted by Morgan (2016) investigated the practices of effective collaboration and coteaching among special education teachers and general education teachers. The purpose of the study was to explore the components of redefining the role of the special education teacher into a collaborative learning specialist. Data were collected in the form of interviews, personal reflections, open-ended survey responses, and student surveys. The study proved the importance of special education teachers and general education teachers to engaging in collaboration and coteaching in an effort to encourage inclusion throughout the schools. Additionally, the study showed the delivery and quality of instruction are improved, creating a more engaged student. Since coteaching can be challenging to implement in any school setting, Nierengarten (2013) developed 20 suggested practices for implementing coteaching.

Coteaching Implementation

Nierengarten (2013) suggested when the school's administration pays attention to small factors designed to encourage and support the teachers in a coteaching setting the chances increase for the successful implementation of coteaching. As a result, Nierengarten provided 20 suggested practices to pave the way for a positive coteaching experience. Administrators should participate in professional development prior to or

alongside the general education and special education teachers. Coteachers should be allowed to choose whether or not they wish to work in an inclusion classroom. General education and special education teachers should receive professional development prior to the implementation of coteaching. The schedules of students with disabilities should be prepared before others to allow for availability and flexibility, as well as ensure classes are not overloaded with students with disabilities. School leaders need to provide verbal and financial support, in addition to having positive attitude towards inclusion classrooms with coteachers. Additionally, school leaders should observe the coteaching teams, provide common planning time, and encourage mutual respect and self-reflection, while ensuring the Individual Education Plans are appropriate and utilized.

General education teachers and special education teachers should receive ongoing professional development once they begin coteaching. Teachers paired together as teams should remain consistent from year to year. This allows teachers to become acclimated and advance in practice. Administrators should provide encouragement and support to the coteachers. Lastly, Nierengarten (2013) recommends teachers be visionaries when implementing coteaching.

The coteaching model supports the special education teacher with including students with disabilities into the least restrictive environment. Therefore, it is important to see how the general education teacher receives support in this setting as well. The General Education Model refers to providing support for the general education teacher.

General Education Collaboration Model

The General Education Collaboration Model supports the general education teacher who services students with disabilities by way of collaboration with special education teachers. This model emphasizes instructional variables and learner behaviors based on the rationale of instructional variables and learner behaviors are requirements in the instructional setting and not separated. According to Meyen, Vergason, and Whelan (1993), the following four major assumptions apply to the General Education Collaboration Model: (a) the general education teachers provide instruction and the special education teachers support to improve student success; (b) students with and without disabilities benefit from the social and academic interaction in the general education classroom; (c) the general education setting is the preferred environment; and (d) most general education teachers and administrators are willing and capable of serving students with disabilities.

Generally, issues related to inclusion have been the domain of special education (Meyen et al., 1993). Because of this, special educators assume the responsibility of students with disabilities served appropriately in the general education classroom. The General Education Collaboration Model stresses the importance of shared responsibility by the general and special education teachers. General education teachers must accept responsibility for students with disabilities taught in an inclusive setting. When this happens, general education teachers can expect full participation in the decision-making process associated with inclusion along with appropriate support (e.g., professional development, consultation). Shared ownership and ownership clarification is imperative.

In addition to general education teachers sharing ownership of what takes place in a coteaching environment, the teachers must be prepared to deliver effective instruction.

Marin's (2014) quantitative study examined general education teachers' level of preparation to teach students with disabilities in coteaching classrooms. Each teacher received a questionnaire to complete in order to identify their opinions on how prepared teachers are to teach students with disabilities in coteaching classrooms as well as their eagerness to teach those students. The findings implied that teachers felt professional development in teaching students with disabilities was needed in order to learn how to effectively serve the needs of those students. Additionally, general education teachers felt there was a need for professional development on how to implement coteaching in an inclusive environment. According to the results, 48% of the teachers felt kind of prepared to teach students with disabilities after receiving professional development in coteaching in an inclusive environment (Marin, 2014). Approximately 8% of the general education teachers felt significantly prepared to deliver effective instruction to students with disabilities. Ultimately, the results represented a need for general education teachers to receive professional development in coteaching in an inclusive environment. Whether it is a general education setting or not, students with disabilities should be in an environment that considers and accepts each student's disability (Marin, 2014).

Dukmak (2013) conducted a quantitative study using different statistical analyses such as ANOVA, focused on the attitudes of general education teachers the inclusion of students with disabilities in a coteaching setting. Additionally, the study examined how teachers' views of the best educational placement for students with disabilities affected

their attitudes toward the inclusion of students with disabilities. The results indicated that teachers did favor the inclusion of students with disabilities, with the male teachers in favor more so than the female teachers did. The study looked at the teachers' years of experience and its influence over the inclusions of students with disabilities. Teachers with more years of experience demonstrated a less favorable attitude towards the inclusion of students with disabilities.

Collaboration between special education teachers and general education teachers has been a highlight of special education since its inception; however, coteaching, the practice of special education teachers and general education teachers sharing instruction for both students with disabilities and students without disabilities in the same environment, is a recent educational practice (Friend, 2016). Friend indicated collaboration has characterized special education for some time. In the past, special education and therapeutic settings confined traditional partnerships. Now the partnerships are evident in the general education setting. If districts plan to effectively implement the coteaching and general education collaboration models, there is a need for research on teacher attitudes and perceptions.

Teacher Attitudes and Perceptions of Coteaching

Since special education and general education teachers need to work together collaboratively to provide an adequate education for students with disabilities, special education teachers have been profoundly fascinated with the attitudes and beliefs of general education teachers regarding inclusion (Pugach, 2005). Federal legislation, such as the Individuals with Disabilities Education Act (IDEA) mandates teachers across the

United States to provide students with an inclusive education in the least restrictive environment (LRE). Logan and Wimer (2013) suggested the attitudes of the teachers have a significant impact in the inclusive classroom, especially in how teachers communicate with students and how curricular decisions are made within the classroom. Logan and Wimer (2013) conducted a study involving 203 middle school and high school teachers in southeast Georgia. The teachers were given a Likert-style survey to determine their attitudes on inclusion, specifically in the areas of their basic belief about the concept of inclusion, maximizing instructional time, professional development, and having access to resources and materials. The findings showed the high school teachers assumed the lead in regard to how they perceived servicing students with disabilities in an inclusive setting. Additionally, the findings showed they were more resolved and confident than the middle school teachers when it came to implementing coteaching in an inclusive environment. The teachers' levels of experience did not have a significant effect on the outcome of the study. As a result, Logan and Wimer concluded it is not safe to assume a person's years of experience gives them the confidence needed to implement various instructional practices. Furthermore, Logan and Wimer implied that the findings are implications of the teachers needing more hands-on professional development regarding inclusion classrooms with coteachers.

Kinne, Ryan, and Faulkner (2016) examined the perceptions of coteaching in inclusion classrooms with coteachers using a survey they developed in 2013. The study involved prospective teachers, supervising teachers, and university supervisors. In 2014, the state of Kentucky passed legislation requiring all teacher candidates who have

completed all required coursework and with at least a 2.75 grade point average to work in a coteaching setting during their clinical experience lasting 16 weeks.

Perceptions of whether the teacher candidate was a full collaborator differed between the teacher candidates and cooperating teachers. The majority of the survey responses reported teacher candidates were able to use classroom management strategies only when forced to do so. The participants of the study had varied perceptions of expectations when it came to coteaching. Kinne et al… (2016) suggested it is necessary to have clear, explicit expectations in order for coteaching to be effective. The results of the survey showed the participants had varied interpretations of what was expected. Although the participants of the study used the seven coteaching strategies to some degree, improvement is still needed. There was frequent use of the *one teach-one observe* and *one teach-one assist* strategies in comparison to the other five. Teachers felt least comfortable using *alternative teaching* and *supplemental teaching* strategies. Overall, general education teachers and special education teachers should experience multiple roles in the inclusion classroom with coteachers. Responsibilities should shift from one teacher to the next, so all involved can experience the full range of responsibilities within an inclusive environment (Kinne et al., 2016). Based on the perceptions of the teachers in the study, Kinne et al. suggested establishing and communicating clear expectations, embedding professional development, and providing for support is necessary for effective coteaching. Additionally, further exploring the effectiveness of coteaching in teacher preparation is necessary.

For general education teachers, the lack of experience teaching students with disabilities has been a major challenge when implementing coteaching in an inclusion classroom. Ko and Boswell (2013) attributed this challenge to the lack of proper training in regard to coteaching in an inclusion classroom, as well as the teachers' negative feelings regarding coteaching. A study was conducted to explore the perceptions of teachers relating to coteaching practices, learning, and their needs in regard to teaching in an inclusion classroom. In this particular study, the teachers did have positive perceptions of teaching students with disabilities in the inclusion classroom with coteachers. Although challenges were referenced, the participants of the study did not focus on the challenges in the inclusion classroom, rather they made it known their ultimate responsibility was to service all students with and without disabilities. The challenges noted were the need for professional development opportunities. Emphasis was placed on hands-on experiences. "Feiman-Nemser described hands-on experiences as the cornerstone to develop well-prepared and effective teachers during preservice programs", (Ko & Boswell, 2013, p. 238). In summary, the study proved the teachers perceived coteaching positively, but acquired their teaching practices through trial and error without a framework to follow. Therefore, well-planned professional development opportunities is necessary for the success of the inclusion classroom with coteachers.

Inclusion classrooms with coteachers are often the settings for students with disabilities to receive instruction in the least restrictive environment. King-Sears et al. (2014) conducted a study to determine if the perceptions of two coteachers and their students with disabilities were similar about what was going on in inclusion classrooms

with coteachers. Survey data was compared from the participants and observational data on the teachers' behaviors were collected. The survey data was also compared to the observational data to determine whether the perceptions of the teachers align with what they actually do. The findings in the study showed the special education teacher did not lead instruction, however, the students perceived as having equal responsibilities within the classroom. Furthermore, the general education teacher assumed the ultimate responsibility for presenting new content to the students. Kings-Sears et al. noted coteachers may need support to ensure they are both sharing responsibilities and providing instruction, however, they have the ultimate responsibility to meet the needs of the students.

The study conducted by Kings-Sears et al. included only one coteaching team and was limited to the students with disabilities. The students without disabilities were not a part of the survey. The coteachers who were observed had control over when they could be recorded and observed, therefore, the data given are not generalizable beyond the participants. Kings-Sears et al. indicated coteaching will likely continue as an instructional delivery model for servicing students with disabilities in the general education classroom. Further research examines the learning outcomes for all students and the quality of instruction provided by coteachers can help determine the critical elements that impede or improve coteaching experiences for both the coteachers and the students.

Religious schools seem to have the same issues as the public education system in the United States when it comes to educating students with disabilities. Special education

teachers and general education teachers alike do not have a full understanding of how to service students with disabilities in an inclusion classroom with coteachers (Sargeant & Berkner, 2015). A qualitative study was conducted to investigate the perceptions and challenges of Seventh-day Adventist teachers regarding inclusion classrooms with coteachers. Data were collected through face-to-face, open-ended interviews. The responses of the participants revealed the teachers have positive attitudes towards inclusion. Additionally, the teachers agree students with disabilities can be taught in an inclusion classroom with coteachers and the classroom. The study further revealed the teachers had challenges in terms of implementing coteaching as a result of the lack of resources and professional development. When teachers have a clear understanding of inclusion and the expectations of the school, they are able to provide instruction to students with disabilities comparable to students without disabilities (Sargeant & Berkner, 2015). Overall, coteachers in inclusion classrooms need support from school leaders and thorough, ongoing professional development to successfully implement coteaching in an inclusive environment. However, Sargeant and Berkner indicated additional research is needed to observe teachers in the inclusion classrooms to identify more challenges faced by teachers to gain a better understanding of what is needed to ensure academic success. Furthermore, acquiring an understanding of the connection between coteaching benefits, accommodations for students, district policies and procedures, and identification of students with disabilities will assist school leaders in making appropriate decisions regarding coteaching.

Research describing the practice of coteaching and how to implement seem to be in abundance; however, research focusing on teachers' roles and relationships is limited (Pancsofar & Petroff, 2013). According to Pancsofar and Petroff, the literature regarding teacher attitudes and coteaching suggests coteaching has been widely accepted by general education and special education teachers, but in some instances, it poses unique challenges to those teachers. Pancsofar and Petroff conducted a study to determine the associations between training on coteaching and teacher attitudes, interests, and confidence regarding coteaching. The study involved 129 teachers from five districts who completed an online survey called, Co-teaching Experiences and Attitudes Survey (CEAS). The survey was created to measure various aspects of coteaching as it is interpreted and experienced by coteachers. The special education teacher participants in this study reported they had more coteaching professional development opportunities and a greater confidence and interest level than general education teacher participants. The results from this study showed a difference between training of special education teachers versus general education teachers. If general education teachers are given the opportunity to actively participate as a coteacher, then it could possibly influence positive attitudes and interests, potentially transforming the school's staff. Pancsofar and Petroff indicated further work may be needed to determine the types of professional development opportunities offered to general education teachers and special education teachers.

Professional Development

As the education process changes to accommodate the needs for students in elementary, middle, and high schools as well as the federal and state mandates, teacher

education must change to prepare teachers and prospective teachers with the necessary knowledge and skills expected of today's educators (Arthaud et al., 2007; Hutchinson et al., 2015). The focus on student achievement and teacher quality is steadily increasing and is reenergizing professional development standards for educators. The preparation coursework and experiences of general education and special education teachers must coincide with beliefs which impact their performance and student achievement in the coteaching environment, therefore, having implications for teacher education program designs and professional development opportunities (McCray & McHatton, 2011).

Due to the federal mandates, such as Common Core State Standards (CCSS), and changes in educational expectations for students with disabilities and their teachers, effective professional development is imperative for general education teachers and special education teachers (Leko, Brownell, Sindelar, & Kiely, 2015). Leko et al. focused on present and future professional development promoting effective performance for general education and special education teachers. In order for their propositions to take place, people in leadership roles need to reevaluate the intellectual and financial resources so there is ongoing support for the professional development of teachers.

The professional development opportunities for special education teachers are not aligned with the increasing knowledge and skills needed to be effective (Benedict, Brownell, Park, Bettini, & Lauterbach, 2014). According to Benedict et al., professional development in many school districts is short in duration and often not aligned with the individual needs of the teachers. As a result, teachers are not effective and are unlikely to develop expertise. Additionally, teachers should become an independent professional

learner, identify an area to target for growth, build their knowledge, and seek feedback and support.

Brinkmann and Twiford (2012) conducted a study to identify skill sets needed to be successful in the coteaching classroom seen as necessary by elementary general education and special education teachers with 5 years or less experience. This qualitative study was comprised of three focus groups, which used a data collection protocol based on the 10 revised Interstate Teacher Assessment and Support Consortium standards. The naturalistic inquiry design is the framework used for this study. Findings from this study imply there should be changes to preservice programs and professional development for educators who are presently in the collaborative or coteaching environment. School systems should closely monitor the use of collaboration and coteaching models within their system in addition to the programs offered to students with disabilities. The study further suggests it is imperative to identify strengths and weaknesses of collaborative and coteaching settings in order to develop professional development to address the gaps. Professional development for both the general education and special education teachers begins at the school level and offered in the skill sets needed for collaborative and coteaching. Prior to pairing teachers for the coteaching setting training in the essential skill sets should take place. Brinkmann and Twiford (2012) recommended additional research to continue meeting the increasing demands for effective collaborative and coteaching environments.

Professional development for teachers may be delivered in a variety of ways, however, not all professional development meet the specific needs of individual teachers

(Shurr, Hirth, Jasper, McCollow, & Heroux, 2014). Shurr et al. proposed a model with three components, school-based, community-based, and universal growth. School-based professional development is executed by the teacher recognizing deficient areas in their performance and working to improve those areas. This may include a need for a stronger foundation in policies and procedures, further development of skills they already possess, or improvement in specific practices, such as teaching in inclusion classrooms with coteachers. The target outcome of school-based professional development is to make the teacher aware of their personal skills, practices, and procedures. Community-based professional development involves the teacher collaborating with families, the school, and local community, as a professional and an advocate for students. This particular framework is designed to improve opportunities for students with disabilities through teacher-formed partnerships. Universal professionalism connects the teacher to broad efforts relating to their content area on a national and international level so they are able to better accommodate students with disabilities. Included in these broad efforts are recruitment of teachers to the field, advocating on the national and international levels on behalf of students with disabilities, and participation in professional organizations.

Using a design-based research method of investigation, Morton and Birky (2015) created a model using coteaching with embedded professional development to determine how learning theories were interconnected. Planning, communication, relationship, classroom applications, and knowledge of coteaching are five areas identified by Morton and Birky as necessary for the success of the coteaching model. Each of the areas were incorporated into and supported throughout the duration of the professional development

for the general education teachers and special education teachers. The participants of the 3-year study included 40 teacher candidates, 40 cooperating teachers, two university supervisors, two high school principals, and two teacher educators. To build trust, the coteaching pairs spent time together and worked together in the classrooms with the students and throughout the professional development. This allowed for the teachers to grow personally, professionally, and establish mutual trust. Novice and experienced teachers gained from the experience. Morton and Birky related their study to the findings of Bacharach, Heck, and Dahlberg (2010) in view of the fact coteaching proved to have a positive impact on the students. Additionally, the teachers in the study felt they could handle classroom management problems, receive constructive criticism, assess one's practice, and differentiate instruction.

Although the study yielded positive results for Morton and Birky (2015), there were limitations. The sites chosen for the study were based on personal relationships with the administrators. The study concluded the combination of a coteaching model and professional development can increase the learning of general education teachers, special education teachers, and even students.

Diverse learning styles should be addressed in inclusion classrooms with coteachers, therefore, identifying approaches to support the academic success of all students is imperative. One approach is Co-teaching Professional Development (CoPD). The CoPD model is designed so general education teachers and special education teachers acquire the skills and knowledge needed to successfully instruct all students. Shaffer and Thomas-Brown (2015) conducted a qualitative study to examine the

pedagogy of coteaching ad embedded professional development within two inclusion classrooms. In this model, the general education teacher is the content specialist and the special education teacher is the expert in dealing with students with disabilities and differentiating instruction. Combining the responsibilities of both teachers brought about challenges and the teachers met daily to discuss and reflect. Through their meetings, the teachers were able to decide what worked and what did not work enabling them to better plan and accommodate students allowing for more effective coteaching. Shaffer and Thomas-Brown collected data from the debriefings, self-report, and semi-structured interviews. Using the CoPD model requires both teachers to share equal responsibilities. The findings of the study show general education teachers and special education teachers must work as a team and be receptive of coteaching. Being as the model incorporates both teachers debriefing regularly, it allows for accommodations and modifications to be made frequently. In the CoPD classrooms, Shaffer and Thomas-Brown recognized classroom management impacted coteaching and felt it should be addressed. General education teachers and special education teachers need professional development not only regarding the implementation of coteaching, but how to address challenging behavior within an inclusion classroom.

Embury and Dinnesen (2012) presented findings of an investigation which involved a pair of coteachers who participated in a coteacher training and subsequent research study in an effort to increase the participation of students with disabilities in the coteaching setting. The teachers involved in the study voluntarily participated in an in-service on coteaching and brain-based learning followed by an interview. During the 10

weeks of the study, the teacher participants used a structured collaborative planning protocol to prepare for coteaching. After observing teacher behavior and student engagement, the teachers participated in a collaborative interview. The findings showed there is a need for further training and support for teachers implementing coteaching as a strategy beyond one teach, one assist. Furthermore, there is a need for continued scaffolding for new coteachers and a structure for reflection and planning for all teachers involved in the coteaching process. Embury and Dinnesen also suggested schools and districts should incorporate coteaching professional development for teachers and administrators if they want positive student outcomes in the coteaching classroom.

Conclusions

This chapter builds the foundation for the purpose of this study. Current coteaching research has focused on coteaching types, implementing coteaching, coteacher behavior, and teacher attitudes and perceptions. Research on the perception differences between general education teachers and special education teachers in regard to coteaching is limited and it warrants further investigation. The research reviewed presents a mixed view on the perceptions of special education coteachers and general education coteachers and how it affects coteaching.

The current study is designed to determine whether differences exist between the perceptions of general education coteachers and special education coteachers in a coteaching setting. The next chapter will discuss the methodology and research design of this study.

Chapter 3: Research Method

The purpose of this quantitative study was to determine if a significant difference exists between the perceptions of general education teachers and special education teachers regarding inclusion classrooms with coteachers. Chapter 3 includes a description of the research methodology identified to conduct this study. Along with revisiting the research questions and hypotheses, I present detailed information about the setting and population; sample; procedures for recruitment, participation, and data collection; instrumentation and materials used; analysis plan; threats to validity; and ethical procedures.

Research Design and Rationale

Variables must be known and measurable to determine an association so that researchers can perform a statistical analysis (Creswell, 2013). The goal of this study was to analyze the opinions of inclusion classrooms with coteachers between general education teachers and special education teachers to determine whether a significant difference exists. The independent variable in this study was the teachers, who were divided into two groups, general education teachers and special education teachers. The opinions of general education teachers and special education teachers regarding inclusion classrooms with coteachers were the dependent variable.

A descriptive-comparison research design was chosen for this study. Researchers conducting descriptive studies seek to understand a specific situation within an identified population (Punch, 2013). Punch (2013) explained that descriptive studies are generally conducted to acquire knowledge to identify a problem for more in-depth research. To

determine the frequencies of responses between general education teachers and special education teachers, a descriptive analysis was performed. Using a descriptive-comparative research design was appropriate because the ORI scale created by Antonak and Larrivee (1995) measured the opinions of the general education teachers and the special education teachers regarding inclusion classrooms with coteachers.

Population

The study was confined to one geographic region of a school district located in an eastern metro suburb of Georgia. The East Metro School District implemented coteaching as a means to serve students with disabilities in the LRE in the hope of identifying areas of improvement to increase teacher effectiveness and student achievement. The East Metro School District had more than 110,000 students enrolled in its 143 schools and centers. The population in the study consisted of 111 general education and special education elementary, middle, and high school teachers. Five regions divided the school district, and the regions were split into clusters. Two clusters within one of the five regions were represented for this study.

Setting and Sampling Procedures

For the purpose of this descriptive-comparison, quantitative study, a cluster sampling was used to identify the participants. The sample was referred to as a cluster sample because participants were invited from a specific region within the district (Huck, 2008). The participants were randomly selected from the chosen cluster to avoid the bias that may exist when research is conducted in schools where teachers and procedures are known. The cluster sampling was selected for this quantitative study due to the schools

within East Metro School District being divided into regions and those regions being divided into clusters. All general education teachers and special education teachers who taught within the selected clusters of the region were invited to participate in the study. Surveys were sent to approximately 111 general education teachers and special education teachers within the two clusters. With a 95% confidence level and a confidence interval of 5, the calculations indicated that only 46 teacher surveys were needed. Therefore, if the process is repeated many times, then approximately 95% of the intervals will capture the true proportion of whether a significant difference exists between the opinions of general education teachers and special education teachers regarding inclusion classrooms with coteachers. If the confidence level is increased, then the margin of error will result in a wider interval. This sample size was adequate based on results using the G*Power Statistical Power Analyses calculator as shown in Figure 1 (Faul, Erdfelder, Buchner, & Lang, 2009).

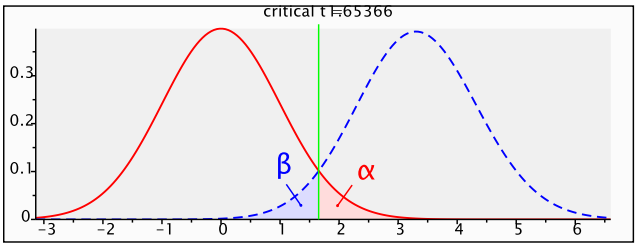

Figure 1. G*Power statistical power analyses.

The elementary, middle, and high schools throughout the district implemented the coteaching model in some form; however, the sample included two clusters within one of the five district regions, where three elementary schools, two middle schools, and two

high schools were housed. The criteria used for selecting the schools included the following: (a) all elementary, middle, and high schools use the coteaching model; (b) all elementary, middle, and high school students with disabilities are included in the Progress Score and Achievement indicators on the CCRPI; and (c) coteaching generally occurs through one of four core subject areas.

Data Collection

The survey and a cover letter were electronically sent to all participants via their district e-mail by the researcher. Participants received a blind carbon copy of the e-mail to conceal their identity from other participants. The e-mail included a cover letter to explain the purpose of the survey, describe expectations of the participants, and make participants aware of their right to decline participation or cease participation in the study at any time. There was a link to the survey (Appendix A) to the Opinions Relative to Integration of Students with Disabilities (ORI), which is a revised version of the 1979 Opinions Relative to Mainstreaming (ORM) scale (Antonak & Larrivee, 1995). Antonak, one of the developers of the survey, granted permission to use the instrument. The survey was published in SurveyMonkey. The teachers were required to identify the following information: gender, assigned school, certificate level, years of experience, and whether they were a special education or a general education teacher. They were not required to enter their name or any other identifying information. The teachers were asked to complete the survey during noninstructional hours.

The completion rate was tracked using SurveyMonkey. I expected 40% of the participants to complete the survey. In Baruch and Holtom's (2008) study about survey

response rate levels and trends, they stated that a benchmark of approximately 35-40% is an adequate survey response rate. Huck (2008) stated, "adequate response rates rarely show up in studies where the researcher simply sits back and waits for responses from people who have been mailed just once a survey, questionnaire, or test" (p. 115). Therefore, to increase the participation rate for the survey, I sent out an e-mail periodically during the survey window reminding teachers to complete the survey. A final e-mail was sent 24 hours prior to the scheduled due date for the survey to remind teachers to please complete the survey if they were planning to participate. Teachers were assured of anonymity as the names of the participants would not be used. The participant names were not disclosed to the principal, assistant principal of instruction, or lead special education teacher.

Instrumentation and Operationalization of Constructs

This study focused on teacher opinions of inclusion classrooms with coteachers. Teachers were given a revised version of the 1979 ORM scale, changed to the ORI (Antonak & Larrivee, 1995). Permission to use the instrument was granted by Antonak, one of the developers of the survey. Appendix B contains the letter sent to Antonak and his response. Larrivee and Cook (1979) developed the ORM to measure the opinions of 941 New England teachers about the inclusion of students with disabilities into the general education environment. There were hypothesized dimensions of attitudes toward mainstreaming that included the following:

- views on education in general;
- mainstreaming philosophy;

- how general education placement affects social, emotional, and cognitive development of students with disabilities;
- similar effects for students without disabilities;
- students with disabilities' behavior in class and their cognitive function;
- parental involvement;
- perceived ability of general education teachers to teach students with disabilities.

Although Antonak and Livneh (1988) evaluated four summated-rating scales that measured attitudes toward the inclusion of students with disabilities in the general education environment, only the ORM was considered for modification because it was carefully developed from an effectual theoretical base. The scale of the ORM (Antonak & Livneh, 1988) encompassed satisfactory psychometric characteristics. However, Antonak and Livneh conceded that certain components of the scale, such as the response format and attitudinal language usage, required a considerable amount of modification in order to provide researchers with a modernized, easy-to-use, psychometrically based instrument.

In the ORI, 25 Likert-type statements include present-day language related to attitude because the old scale used dispassionate terminology to refer to students with disabilities. Rearranging the items strategically and revising the item-response format on the scale decreased any threats to validity (Antonak & Livneh, 1988). The ORI consists of four categories: benefits of inclusion, inclusive classroom management, perceived ability to teach students with disabilities, and special education versus inclusive settings.

Brill (2008) noted that the Likert scale is probably the most commonly used form of attitude analysis in survey research. The Likert scale, developed in 1932, was named for Rensis Likert. Items rank according to the participants' attitudes. The updated ORI contains a 6-point Likert scale, which includes the following possible responses and points: *I disagree very much* (-3), *I disagree pretty much* (-2), *I disagree a little* (-1), *I agree a little* (+1), *I agree pretty much* (+2), and *I agree very much* (+3). The ORI contains 25 statements, and of those statements, 12 are negatively worded and 13 are positively worded. Responses to the ORI are scored in the direction of a positive attitude and then summed. In order to eliminate a negative score, add a constant score of 75. Potential scores from the ORI range from 0 to 150, with a higher score indicating an approving attitude toward inclusion (Antonak & Larrivee, 1995).

The ORI scale is used to evaluate the attitudes of teachers toward students with disabilities taught in the general education setting (Antonak & Larrivee, 1995). Initially, the ORM consisted of 30 questions, but it was streamlined to 25 questions and the language of the survey was updated. Researchers have given credibility to the ORI through their use of the instrument; therefore, it is considered reliable and valid (Antonak & Larrivee, 1995). Antonak and Larrivee (1995) completed an item analysis, and the results were satisfactory. The mean of the Spearman-Brown corrected split-half reliability coefficient estimate was 0.82, with a standard error of measurement of 5.98. Cronbach's coefficient alpha homogeneity coefficient was 0.88. The Scale of Attitudes Toward Disabled Persons (SADP) measures overall attitudes toward people with disabilities as a

group and was given in addition to the ORI. Hierarchal multiple-regression analyses measured the validity of the scale.

Research Question 1 focused on the first factor of the ORI, which was the benefits of inclusion. Of the questions asked in the survey, 32% focused on the benefits of inclusion. Those eight questions included the following: Questions 3, 7, 11, 14, 17, 20, 21, and 24. The questions asked in this factor focused on whether general education and special education teachers thought that the integration of students with disabilities was beneficial for students without disabilities. Additionally, the questions identified whether or not general education and special education teachers thought that placing students with disabilities in an inclusion classroom with coteachers would promote academic growth in the students with disabilities. Another focus of this factor was whether students should be given an opportunity to function in an inclusion classroom with coteachers whenever possible.

Research Question 2 dealt with the factor of inclusive classroom management and was linked to 40% of the questions within the survey. Those questions that focused on Research Question 2 were Questions 1, 4, 6, 9, 12, 15, 16, 18, 22, and 25. The purpose of this factor was to identify general education and special teachers' opinions of whether it is difficult to maintain order in an inclusion classroom with coteachers. Furthermore, this factor addresses the teachers' opinions of the overall behavior of students with disabilities within an inclusion classroom and their interactions with their peers. Questions 2, 10, and 19 focused on a teacher's ability to teach students with disabilities in an inclusion classroom with coteachers, and they were the focus of Research Question 3. In this

factor, the ORI focused on whether general education teachers had received effective professional development to teach students with disabilities in an inclusion classroom with coteachers. In relation to Research Question 4, the challenge of being in an inclusive environment and the ability to promote the academic growth of students with disabilities was addressed in Questions 5, 8, 13, and 23.

In addition to the survey, the participants were asked to complete a teacher demographic survey that I designed to identify the teacher as a general education teacher or a special education teacher. Teachers self-reported whether they had taught in inclusion classrooms with a coteacher. Additionally, teachers provided information on gender, assigned school, educational level, and years of experience. Information collected from the demographic questionnaire in Appendix D was used to describe the participants in the survey.

Data Analysis Plan

This descriptive-comparison quantitative study sought to answer the following research questions and hypotheses. The overall research question was the following: Are general education and special education teachers' opinions of inclusion classrooms with coteachers as evidenced by the Opinions Relative to Integration of Students With Disabilities (ORI) scale different?

H_1: There is a statistically significant difference in general education and special education teachers' opinions of inclusion classrooms with coteachers as evidenced by Opinions Relative to Integration of Students With Disabilities (ORI) scale.

H_0: There is no statistically significant difference in general education and special education teachers' opinions of inclusion classrooms with coteachers as evidenced by Opinions Relative to Integration of Students With Disabilities (ORI) scale.

The specific research questions for this study were as follows.

Research Question 1 was the following: Are general education and special education teachers' opinions of the benefits of inclusion classrooms with coteachers significantly different? The hypotheses for Research Question 1 were as follows:

H_1: There is a statistically significant difference in teachers' opinions of benefits of inclusion classrooms with coteachers as measured by the Factor I score of ORI.

$H_{(1)0}$: There is no statistically significant difference in teachers' opinions of benefits of inclusion classrooms with coteachers as measured by the Factor I score of ORI.

Research Question 2 was as follows: Are general education and special education teachers' opinions of inclusive classroom management different in inclusion classrooms with coteachers? The hypotheses for Research Question 2 were as follows:

H_2: There is a statistically significant difference in the teachers' opinions of inclusive classroom management in inclusion classrooms with coteachers as measured by the Factor II score of ORI.

$H_{(2)0}$: There is no statistically significant difference in the teachers' opinions of inclusive classroom management in inclusion classrooms with coteachers as measured by the Factor II score of ORI.

Research Question 3 was the following: Are general education and special education teachers' opinions of their ability to teach students with disabilities different in inclusion classrooms with coteachers? The hypotheses for Research Question 3 were as follows:

H_3: There is a statistically significant difference in the teachers' opinions of their ability to teach students with disabilities in inclusion classrooms with coteachers as measured by the Factor III score of ORI.

$H_{(3)0}$: There is no statistically significant difference in the teachers' opinions of their ability to teach students with disabilities in inclusion classrooms with coteachers as measured by the Factor III score of ORI.

Research Question 4 was the following: Are general education and special education teachers' opinions of the academic and social growth of students with disabilities different in inclusion classrooms with coteachers? The hypotheses for Research Question 4 were as follows:

H_4: There is a statistically significant difference in the teachers' opinions of the academic and social growth of students with disabilities in inclusion classrooms with coteachers as measured by the Factor IV score of ORI.

$H_{(4)0:}$ There is no statistically significant difference in the teachers' opinions of the academic and social growth of students with disabilities in inclusion classrooms with coteachers as measured by the Factor IV score of ORI.

The district's Research and Evaluation department demonstrated support by granting permission to collect data within the district.

Upon completion of the study and receipt of the surveys, data were imported and analyzed using SPSS version 23 for Windows (Armonk, NY). All data were in text format. For example, the responses for the 25 ORI items included: "I disagree very much", "I disagree pretty much", "I disagree a little", "I agree a little", "I agree pretty much", and "I agree very much". Frequency tables were used to examine the data for erroneous and missing values.

Once the data were cleaned, the responses from the ORI scale were scored using the recommended instructions by Antonak and Larrivee (1995). The responses to the ORI items were rated on a 6-point Likert-type scale ranging from +3 to -3, *I disagree very much* (-3), *I disagree pretty much* (-2), *I disagree a little* (-1), *I agree a little* (+1), *I agree pretty much* (+2), and *I agree very much* (+3). The overall and the four sub-scales scores of the ORI were computed using the 5 steps scoring instructions suggested by Antonak and Larrivee (1995).

Frequency tables were used to summarize the demographics of the participants and the survey responses for ORI. Descriptive statistics of the overall and the four sub-scales scores of the ORI by teacher role (general education teacher vs. special education

teacher) were reported. Box plots were used to determine if there were outliers (Field, 2013).

The z-scores of skewness and kurtosis (Fidell & Tabachnick, 2003) were used to assess the normality of the data (overall and the four sub-scales scores of the ORI by teacher type (general education teacher vs. special education teacher)). A value of the z-score greater than 2.58 or lesser than -2.58 (i.e., two-tailed alpha levels of 0.01) indicated the data were not normally distributed (Fidell & Tabachnick, 2003). In this study, as the data were normally distributed (z-scores for skewness ranging from -2.38 to 1.04; z-scores for kurtosis ranging from -1.05 to 0.76), parametric methods, such as two-sample *t* tests, were proposed to answer the research questions.

The two-sample *t* tests were used to determine if there was a statistically significant difference in the overall and the four sub-scales scores of the ORI between general education teachers and special education teacher. The independent variable, teacher role, consists of two groups identified as general education teachers and special education teachers. There were four dependent variables: the overall ORI score and the four sub-scales scores of the ORI (Factor I (Benefits of integration), Factor II (Integrated classroom management), Factor III (Perceived ability to teach students with disabilities), and Factor IV (Special versus integrated general education)). The significance level was $p < 0.05$, which suggested a 5% risk of determining whether a difference did exist when there is no actual difference in the opinions of general education teachers and special education teachers in regards to inclusion classrooms with coteachers. All tests were two-tailed.

Threats to Validity

Creswell (2013) explained internal validity threats deal with the researcher's ability to draw correct inferences from the data because of using inadequate procedures or aspects or problems applying treatments. The characteristics of the participants can also pose a threat. A possible threat to internal validity for this study included selection-maturation interaction. Potential threats to external validity exist when incorrect inferences draw from the sample data to other persons, settings, and past or future situations (Creswell, 2013). To eliminate this type of threat, there were no generalization beyond the participants in this study to other racial or social groups not included in this study.

Trochim (2006) defined selection-maturation interaction as a developmental process that is normal and ongoing. The participants for this study were general education teachers and special education teachers who taught in a coteaching environment. Some participants may have received enough professional development to understand the importance of effectively implementing coteaching and the impact it has on all students involved. Therefore, those teachers may strive harder to ensure students with disabilities have every opportunity to reach academic success as those students without disabilities.

Ethical Procedures

Prior to the beginning of the study, approval from Walden University's Institutional Review Board (IRB) was granted. Once granted IRB approval, the school administration and teachers received the goals of the study and the rights and responsibilities of all participants. The anticipated pool of participants included certified

general education teachers and special education teachers who taught in the coteaching setting. The selected participants included any teacher who met this criterion. Since the survey was anonymous, a teacher's completion of the survey was an indication they agreed with the letter of informed consent. The letter of informed consent provided a brief explanation of the research objectives, planned research methods, and a description of any foreseeable risks, if any. Additionally, the letter of informed consent explained how the confidentiality of data identifying the participants, statement of voluntary participation, and lack of compensation. The letter included allowing the participants to withdraw from the study at any time without facing adverse consequences.

Confidentiality of Data

The data collected were anonymous to ensure the teachers' anonymity. The data collected is protected as they are kept on a private, password-protected computer. The password used for the computer is difficult to determine, therefore, the chances of someone gaining access is lessened. Usually, data is kept 5-7 years and then destroyed. The files associated with the study and data will be permanently deleted from the computer.

Summary

The Teachers' Opinions of Co-Teaching Study was designed to determine if differences in opinions exist between general education teachers and special education teachers regarding inclusion classrooms with coteachers. The study also looked at the possible differences in teacher opinions towards their ability to teach students with disabilities. This chapter provided an outline of the methodology of the quantitative

research study that was used to determine if there is a significant difference. Chapter 4 will discuss the data analysis of the findings and results.

Chapter 4: Results

Presently, the opinions of teachers regarding inclusion classrooms with coteachers need to be identified in the areas of the benefits of coteaching, classroom management, student readiness, and teacher readiness (Dieker & Murawski, 2003; King-Sears et al., 2014). The purpose of this quantitative descriptive research study was to determine whether differences in opinions exist between general education teachers and special education teachers regarding inclusion classrooms with coteachers. As part of this descriptive-comparison quantitative study, statistical analyses were conducted to determine whether differences existed between general education teachers and special education teachers. Permission to collect data was granted by the Walden University IRB (#02-04-19-0107827).

The purpose of this chapter is to analyze the statistical results conducted for each of the research questions. The chapter begins with a look at the participant demographics, including each teacher's role of either general education teacher or special education teacher, which was the independent variable for this study. Teacher opinions, as measured by the overall score and the four subscale scores for the ORI, were the dependent variables. The results for each research question are also presented within this chapter. Upon review of the statistical findings, a decision to accept or reject the null hypothesis for each research question is made.

The overall research question for this study was the following: Are general education and special education teachers' opinions of inclusion classrooms with coteachers as evidenced by the Opinions Relative to Integration of Students With

Disabilities (ORI) scale different? The guiding questions for this study focused on opinions of the benefits of coteaching, opinions of inclusive classroom management, opinions of ability to teach students with disabilities, and opinions of academic and social growth of students with disabilities. Specifically, the research questions and hypotheses were as follows.

Research Question 1: Are general education and special education teachers' opinions of the benefits of inclusion classrooms with coteachers significantly different? The hypotheses for Research Question 1 were as follows:

H_1: There is a statistically significant difference in teachers' opinions of benefits of inclusion classrooms with coteachers as measured by the Factor I score of ORI.

$H_{(1)0}$: There is no statistically significant difference in teachers' opinions of benefits of inclusion classrooms with coteachers as measured by the Factor I score of ORI.

Research Question 2: Are general education and special education teachers' opinions of inclusive classroom management different in inclusion classrooms with coteachers? The hypotheses for Research Question 2 were as follows:

H_2: There is a statistically significant difference in the teachers' opinions of inclusive classroom management in inclusion classrooms with coteachers as measured by the Factor II score of ORI.

$H_{(2)0}$: There is no statistically significant difference in the teachers' opinions of inclusive classroom management in inclusion classrooms with coteachers as measured by the Factor II score of ORI.

Research Question 3: Are general education and special education teachers' opinions of their ability to teach students with disabilities different in inclusion classrooms with coteachers? The hypotheses for Research Question 3 were as follows:

H_3: There is a statistically significant difference in the teachers' opinions of their ability to teach students with disabilities in inclusion classrooms with coteachers as measured by the Factor III score of ORI.

$H_{(3)0}$: There is no statistically significant difference in the teachers' opinions of their ability to teach students with disabilities in inclusion classrooms with coteachers as measured by the Factor III score of ORI.

Research Question 4: Are general education and special education teachers' opinions of the academic and social growth of students with disabilities different in inclusion classrooms with coteachers? The hypotheses for Research Question 4 were as follows:

H_4: There is a statistically significant difference in the teachers' opinions of the academic and social growth of students with disabilities in inclusion classrooms with coteachers as measured by the Factor IV score of ORI.

$H_{(4)0}$: There is no statistically significant difference in the teachers' opinions of the academic and social growth of students with disabilities in inclusion classrooms with coteachers as measured by the Factor IV score of ORI.

Data Collection

Before any survey, questionnaire, or data collecting instruments are distributed at a school, the administrators must approve. Therefore, I sent the survey and a cover letter electronically to various administrators at each participating school via their district e-mail for distribution to a total of 111 teachers. Due to testing and other scheduled events throughout each school, data collection took place over 14 days. Participants received a blind carbon copy of the e-mail to conceal their identity from other participants. The e-mail included a cover letter explaining the purpose of the survey, the expectations of the participants, and their right to decline participation or cease participation in the study at any time. A link to the SurveyMonkey-published survey was included in the e-mail. The teachers were required to identify the following information: gender, school level, certificate level, years of experience, and whether they were a special education or a general education teacher. The rate of return was 71% of 111 possible participants or N = 79.

Data Analysis Procedures

Data Screening

Data for 79 participants were imported and analyzed using SPSS version 23 for Windows (Armonk, NY). The text responses for the 25 ORI items were recoded into numerical values as suggested by Antonak and Larrivee (1995), with -3 = *I disagree very much*, -2 = *I disagree pretty much*, -1 = *I disagree a little*, 1 = *I agree a little*, 2 = *I agree pretty much*, and 3 = *I agree very much*.

Frequency tables were used to examine the data for the four demographic variables (school level, educator certificate level, years of experience, and teacher role) and the 25 ORI items for erroneous and missing values. All 79 participants had answered the four demographic questions, and there were no erroneous responses. For the ORI items, there were no erroneous responses; however, some participants had not responded to all ORI items. Table 1 summarizes the frequency counts of missing responses for the 25 ORI items. A majority of the 79 participants (86.1%) had answered all 25 ORI items. Five participants (6.3%) had missed one item, four participants (5.1%) had missed two items, one participant (1.3%) had missed four items, and one participant (1.3%) had missed 13 items. According to Antonak and Larrivee (1995), subjects with omitted responses to four or more items should not be included in the analysis. Thus, the two participants with four or more missing responses were excluded from the data analysis in this study. The final sample size for this study was $N = 77$.

Table 1

Frequency Counts of Missing Responses for ORI

Number of missing values	Frequency	%
0	68	86.1
1	5	6.3
2	4	5.1
4*	1	1.3
13*	1	1.3

*Removed from final sample.

Demographics

The final study sample consisted of 77 subjects [*n* = 53, 68.8%] general education teachers and [*n* = 24, 31.2%] special education teachers) who worked in inclusion classrooms with coteachers. Characteristics of participants such as gender, school teaching level, certification level, and years of teaching experience were recorded in this study. Regardless of teaching role, a majority of the teachers were female (71.7% for general education teachers vs. 66.7% for special education teachers) and taught at high schools (94.3% for general education teachers vs. 83.3% for special education teachers). The teachers had either a bachelor's degree (34.0% for general education teachers vs. 25.0% for special education teachers) or a master's degree (45.3% for general education teachers vs. 50.0% for special education teachers).

Among general education teachers, over one third of the participants had at least 20 years of teaching experience (33.3%) and one fourth of the participants had been teaching for less than 5 years (25.0%). On the other hand, for special education teachers, over one fourth of the participants had been teaching for less than 5 years (26.4%) and slightly less than one fourth of the participants had at least 20 years of teaching experience (22.6%). Table 2 displays the demographics information.

Table 2

Characteristics of Participants

Variable	General (n = 53)	Special (n = 24)	Total
Sex			
Male	15 (28.3)	8 (33.3)	31 (40.3)
Female	38 (71.7)	16 (66.7)	46 (59.7)
School level			
Middle	3 (5.7)	4 (16.7)	7 (9.1)
High	50 (94.3)	20 (83.3)	70 (90.9)
Educator certificate level			
Bachelor's	18 (34.0)	6 (25.0)	24 (31.2)
Master's	24 (45.3)	12 (50.0)	36 (46.8)
Advanced degree (Specialist and ABD)	8 (15.1)	5 (20.8)	13 (16.9)
Doctorate	3 (5.7)	1 (4.2)	4 (5.2)
Years of experience			
5 years or less	14 (26.4)	6 (25.0)	20 (26.0)
6-10 years	8 (15.1)	5 (20.8)	13 (16.9)
11-15 years	12 (22.6)	3 (12.5)	15 (19.5)
16-20 years	7 (13.2)	2 (8.3)	9 (11.7)
20 years or more	12 (22.6)	8 (33.3)	20 (26.0)

Summary of Survey Responses for ORI

The text responses for the 25 ORI items were recoded into numerical values as suggested by Antonak and Larrivee (1995), with -3 = *I disagree very much*, -2 = *I disagree pretty much*, -1 = *I disagree a little*, 1 = *I agree a little*, 2 = *I agree pretty much*, and 3 = *I agree very much*. Furthermore, for the purpose of summary, the responses for disagreement (-3, -2, and -1) were grouped together as *disagree*, and the responses for agreement (1, 2, and 3) were grouped together as *agree*. The 25 ORI items formed four factors of teachers' opinions of inclusion classrooms with coteachers. The results of the response summary for ORI are presented in Table 3.

Factor I (benefits of integration). Factor I (benefits of integration) consisted of eight items (Q3, Q7, Q11, Q14, Q17, Q20, Q21, and Q24). It appeared that general and special education teachers had similar opinions regarding the benefits of coteaching (Factor I), as a majority of them agreed on the following:

1. Integration offers mixed group interaction that will foster understanding and acceptance of differences among students (Q3: % agree = 92.5% for general education and 83.3% for special education).
2. The challenge of being in a general classroom will promote the academic growth of the student with a disability (Q7: % agree = 75.5% for general education and 82.6% for special education).
3. The integration of students with disabilities can be beneficial for students without disabilities (Q17: % agree = 84.9% for general education and 91.7% for special education).

4. Students with disabilities should be given every opportunity to function in the general classroom where possible (Q21: % agree = 88.7% for general education and 87.5% for special education).

The majority of the teachers disagreed that the presence of students with disabilities will not promote acceptance of differences on the part of students without disabilities (Q11: % disagree = 71.1% for general education and 79.2% for special education). The teachers furthered disagreed that the integration of the student with a disability will not promote his or her social interdependence (Q14: % disagree = 73.1% for general education and 82.6% for special education). Another statement the teachers disagreed with was that integration will likely have a negative effect on the emotional development of the student with a disability (Q20: % disagree = 75.5% for general education and 79.2% for special education). Additionally, they disagreed that isolation in a special education classroom has a beneficial effect on the social and emotional development of the student with a disability (Q20: % disagree = 64.2% for general education and 66.7% for special education).

Factor II (integrated classroom management). Factor II (integrated classroom management) consisted of 10 items (Q1, Q4, Q6, Q9, Q12, Q15, Q16, Q18, Q22, and Q25). It appeared that general and special education teachers had similar opinions regarding inclusive classroom management (Factor II). A majority of both groups of teachers agreed that (a) most students with disabilities will make an adequate attempt to complete their assignments (Q1: % agree = 84.9% for general education and 79.2% for special education), and (b) the student with a disability will not be socially isolated in the

general classroom (Q25: % agree = 67.3% for general education and 70.8% for special education).

A majority of both groups of teachers disagreed that (a) the behavior of students with disabilities will set a bad example for students without disabilities (Q12: % disagree = 71.2% for general education and 83.3% for special education), and (b) students with disabilities are likely to create confusion in the general classroom (Q18: % disagree = 71.7% for general education and 79.2% for special education).

Approximately two thirds of the teachers disagreed with the following statements:

1. It is likely that the student with a disability will exhibit behavior problems in a general classroom (Q4: % disagree = 66.0% for general education and 58.3% for special education).
2. The extra attention that students with disabilities require will be to the detriment of the other students (Q6: % disagree = 56.6% for general education and 62.5% for special education).
3. The classroom behavior of the student with a disability generally does not require more patience from the teacher than does the classroom behavior of the student without a disability (Q22: % disagree = 54.7% for general education and 66.7% for special education).

Finally, over half of the general education teachers (52.8%) and nearly 70% of the special education teachers (69.6%) disagreed that increased freedom in the general classroom creates too much confusion for the student with a disability (Q9). Over half of the general education teachers (52.8%) and over 70% of the special education teachers

(70.8%) agreed that students with disabilities will not monopolize the general classroom teacher's time (Q16). About half of both teachers agreed that it is not more difficult to maintain order in a general classroom that contains a student with a disability than in one that does not contain a student with a disability (Q15: % disagree = 52.8% for general education and 54.2% for special education).

Factor III (perceived ability to teach students with disabilities). Factor III (Perceived ability to teach students with disabilities) consisted of 3 items (Q02, Q10, and Q19). It appeared that general and special education teachers had mixed opinions regarding ability to teach students with disabilities (Factor III). Majority of the teachers agreed that integration of students with disabilities will necessitate extensive retraining of general-classroom teachers (Q2: % agree = 67.3% for general education and 78.3% for special education). Majority of the special education teachers (79.2%) and less than 60% of general education teachers (58.5%) disagreed that general-classroom teachers have sufficient training to teach students with disabilities (Q19). About two-thirds of general education teachers (66.0%) and only about 40% special education teachers (41.7%) agreed that general-classroom teachers have the ability necessary to work with students with disabilities (Q10).

Factor IV (special vs. integrated general education). Factor IV (Special versus integrated general education) consisted of 4 items (Q5, Q8, Q13, and Q23). It appeared that general and special education teachers had mixed opinions regarding special versus integrated general education (Factor IV). While over half of general education teachers (54.9%) disagreed that students with disabilities can best be served in general classrooms

(Q5), over half of the special education teachers (56.5%) agreed with this statement. About two-thirds of both teachers agreed that integration of students with disabilities will require significant changes in general classroom procedures (Q8: % agree = 64.2% for general education and 65.2% for special education). Slightly over half of general education teachers (54.0%) and over 70% of special education teachers (73.9%) agreed that student with a disability will probably develop academic skills more rapidly in a general classroom than in a special classroom (Q13). Nearly two-thirds of general education teachers (63.5%) and half of special education teachers (50.0%) agreed that teaching students with disabilities is better done by special education teachers than by general-classroom teachers (Q23).

Table 3

Summary of Responses of ORI Items

	General		Special	
	Disagree	Agree	Disagree	Agree
Q1 - Most students with disabilities will make an adequate attempt to complete their assignments.	8 (15.1)	45 (84.9)	5 (20.8)	19 (79.2)
Q2 - Integration of students with disabilities will necessitate extensive retraining of general-classroom teachers.	17 (32.7)	35 (67.3)	5 (21.7)	18 (78.3)
Q3 - Integration offers mixed group interaction that will foster understanding and acceptance of differences among students.	4 (7.5)	49 (92.5)	4 (16.7)	20 (83.3)
Q4 - It is likely that the student with a disability will exhibit behavior problems in a general classroom.	35 (66.0)	18 (34.0)	14 (58.3)	10 (41.7)
Q5 - Students with disabilities can best be served in general classrooms.	28 (54.9)	23 (45.1)	10 (43.5)	13 (56.5)
Q6 - The extra attention students with disabilities require will be to the detriment of the other students.	30 (56.6)	23 (43.4)	15 (62.5)	9 (37.5)
Q7 - The challenge of being in a general classroom will promote the academic growth of the student with a disability.	13 (24.5)	40 (75.5)	4 (17.4)	19 (82.6)
Q8 - Integration of students with disabilities will require significant changes in general classroom procedures.	19 (35.8)	34 (64.2)	8 (34.8)	15 (65.2)
Q9 - Increased freedom in the general classroom creates too much confusion for the student with a disability.	28 (52.8)	25 (47.2)	16 (69.6)	7 (30.4)
Q10 - General-classroom teachers have the ability necessary to work with students with disabilities.	18 (34.0)	35 (66.0)	14 (58.3)	10 (41.7)
Q11 - The presence of students with disabilities will not promote acceptance of differences on the part of students without disabilities.	38 (71.7)	15 (28.3)	19 (79.2)	5 (20.8)
Q12 - The behavior of students with disabilities will set a bad example for students without disabilities.	37 (71.2)	15 (28.8)	20 (83.3)	4 (16.7)
Q13 - The student with a disability will probably develop academic skills more rapidly in a general classroom than in a special classroom.	24 (45.3)	29 (54.0)	6 (26.1)	17 (73.9)
Q14 - Integration of the student with a disability will not promote his or her social interdependence.	38 (73.1)	14 (26.9)	19 (82.6)	4 (17.4)
Q15 - It is not more difficult to maintain order in a general classroom that contains a student with a disability than in one that does not contain a student with a disability.	25 (47.2)	28 (52.8)	11 (45.8)	13 (54.2)
Q16 - Students with disabilities will not monopolize the general classroom teacher's time.	25 (47.2)	28 (52.8)	7 (29.2)	17 (70.8)

(*table continues*)

	General		Special	
	Disagree	Agree	Disagree	Agree
Q17 - The integration of students with disabilities can be beneficial for students without disabilities.	8 (15.1)	45 (84.9)	2 (8.3)	22 (91.7)
Q18 - Students with disabilities are likely to create confusion in the general classroom.	38 (71.7)	15 (28.3)	19 (79.2)	5 (20.8)
Q19 - General-classroom teachers have sufficient training to teach students with disabilities.	31 (58.5)	22 (41.5)	19 (79.2)	5 (20.8)
Q20 - Integration will likely have a negative effect on the emotional development of the student with a disability.	40 (75.5)	13 (24.5)	19 (79.2)	5 (20.8)
Q21 - Students with disabilities should be given every opportunity to function in the general classroom where possible.	6 (11.3)	47 (88.7)	3 (12.5)	21 (87.5)
Q22 - The classroom behavior of the student with a disability generally does not require more patience from the teacher than does the classroom behavior of the student without a disability.	29 (54.7)	24 (45.3)	16 (66.7)	8 (33.3)
Q23 - Teaching students' disabilities is better done by special education teachers than by general-classroom teachers.	19 (36.5)	33 (63.5)	12 (50.0)	12 (50.0)
Q24 - Isolation in a special education classroom has a beneficial effect on the social and emotional development of the student with a disability.	34 (64.2)	19 (35.8)	16 (66.7)	8 (33.3)
Q25 - The student with a disability will not be socially isolated in the general classroom.	17 (32.7)	35 (67.3)	7 (29.2)	17 (70.8)

Note. $N = 74$ for Q74; $N = 75$ for Q2 and Q14; $N = 76$ for Q7, Q8, Q9, Q12, Q13, Q23, and Q25; $N = 77$ for Q1, Q3, Q4, Q6, Q10, Q11, Q15-Q22, and Q24.

Descriptive Statistics and Normality Examination of the Study Variables

The overall and the four sub-scales scores of the ORI were computed using the 5 steps scoring instructions suggested by Antonak & Larrivee (1995). Descriptive statistics of the overall and the four sub-scales scores of the ORI by teacher type (general education teacher vs. special education teacher) were reported in Table 4.

Table 4

Descriptive Statistics of the ORI Scores by Teacher Role

								Z score	
Factor	Role	*M*	*SD*	*Min*	*Max*	Skewness	Kurtosis	Skewness	Kurtosis
I	G	32.91	8.76	11	48	-0.38	-0.15	-1.15	-0.23
	S	34.83	9.39	12	47	-1.12	0.70	-2.38	0.76
II	G	34.66	10.90	7	60	-0.45	0.08	-1.36	0.13
	S	37.83	11.35	19	58	0.02	-0.97	0.04	-1.05
III	G	8.43	4.07	0	17	-0.01	-0.46	-0.03	-0.72
	S	6.21	3.09	0	11	0.20	-0.84	0.43	-0.91
IV	G	10.68	5.19	0	24	0.32	-0.11	0.97	-0.17
	S	12.58	4.86	5	23	0.49	-0.37	1.04	-0.40
Overall	G	86.67	24.23	20	144	-0.34	0.24	-1.03	0.38
	S	91.46	20.33	47	128	-0.38	-0.45	-0.81	-0.49

Note. G = general education teachers; S = special education teachers. *SE of* skewness = 0.33 for general education and 0.47 for special education; *SE of* kurtosis = 0.64 for general education and 0.92 for special education. *Z* score for skewness was computed by skewness / *SE of* skewness; *Z* score for kurtosis was computed by kurtosis / *SE of* kurtosis.

Furthermore, box plots were used to visualize the data and detect for outliers (Figures 2-5). In a box plot, the line inside the box is the median. The interquartile range box of a box plot represents the middle 50% of the data (i.e., from the 1st quartile (Q1) to the 3rd quartile (Q3). Whiskers extending from either side of the box represent the ranges for the bottom 25% and the top 25% of the data values, excluding outliers (Field, 2013). According to Field (2013), outliers are data values that are far away from other data values. In the box plots created by SPSS, values more than three IQR's (the interquartile range (IQR) is a measure of statistical dispersion, being equal to the difference between 75th and 25th percentiles, or between the 1st and the 3rd quartiles) from the end of a box are labeled as extreme outliers, denoted with an asterisk (*). Values more than 1.5 IQR's but less than 3 IQR's from the end of the box are labeled as outliers (o).

Descriptive Statistics of Factor I

For Factor I (Benefits of integration), the possible range of scores was 0-48, with higher scores indicating more positive opinions regarding benefits of coteaching. The average scores for Factor I were 32.91 (*SD* = 8.76) and 34.83 (*SD* = 9.39) for general education teachers and special education teachers, respectively, indicating that both teachers had considerately positive opinions regarding benefits of coteaching.

From the box plot for Factor I scores (Figure 2), for general education teacher, *Mdn* = 33, *IQR* = 11, *Q1* = 28, *Q3* = 39, and any values not between 11.5 (*Q1*-1.5**IQR*) and 55.5 (*Q3*+1.5**IQR*) would be considered as outliers by SPSS. For special education teacher, *Mdn* = 38, *IQR* = 11.5, *Q1* = 30, *Q3* = 41.5, and any values not between 12.75 (*Q1*-1.5**IQR*) and 58.75 (*Q3*+1.5**IQR*) would be considered as outliers by SPSS.

One potential outlier (Factor I score = 11) for general education teachers and one potential outlier (Factor I score = 12) for special education teachers were identified. However, upon further examining, the two points were not considered as outliers as they were not far away from other data values. Thus, no outliers were found for Factor I scores.

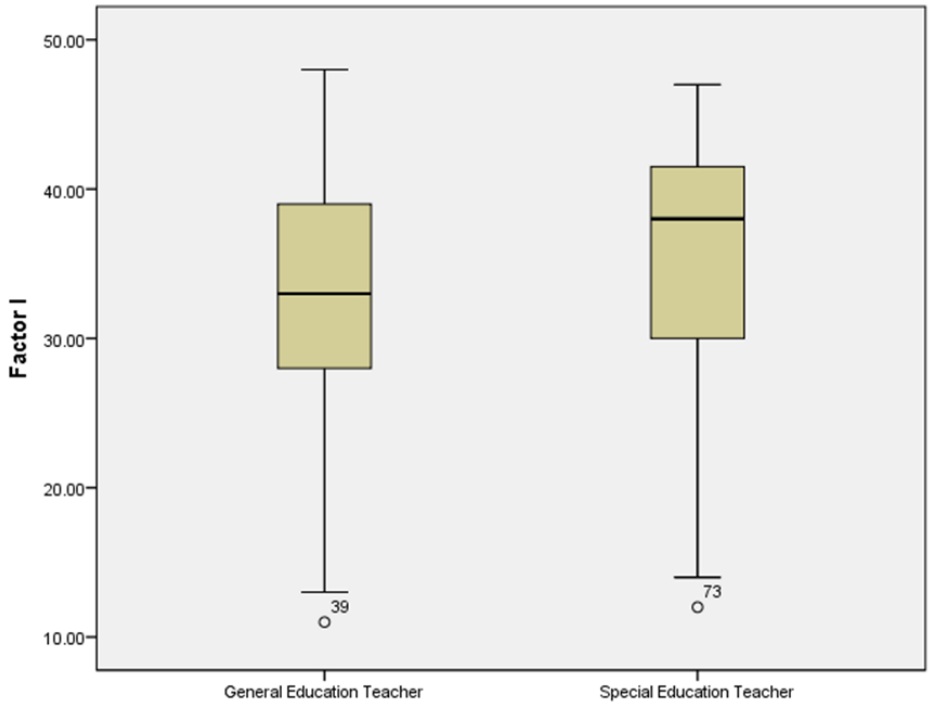

Figure 2. Box plots of Factor I score, by teacher role. For general education teacher: Mdn = 33, IQR = 11, Q1 = 28, Q3 = 39; for special education teacher: Mdn = 38, IQR = 11.5, Q1 = 30, Q3 = 41.5.

Descriptive Statistics of Factor II

For Factor II (Integrated classroom management), the possible range of scores was 0-60, with higher scores indicating more positive opinions regarding inclusive

classroom management. The average scores for Factor II were 34.66 (*SD* = 10.90) and 37.83 (*SD* = 11.35) for general education teachers and special education teachers, respectively, indicating that both teachers had moderately positive opinions regarding inclusive classroom management.

From the box plot for Factor II scores (Figure 3), for general education teacher, *Mdn* = 37, *IQR* =14, *Q1* = 28, *Q3* = 42, and any values not between 7 (*Q1*-1.5**IQR*) and 63 (*Q3*+1.5**IQR*) would be considered as outliers by SPSS. For special education teacher, *Mdn* = 36.5, *IQR* = 17, *Q1* = 30.5, *Q3* = 47.5, and any values not between 5 (*Q1*-1.5**IQR*) and 73 (*Q3*+1.5**IQR*) would be considered as outliers by SPSS. No outliers were found for Factor II scores.

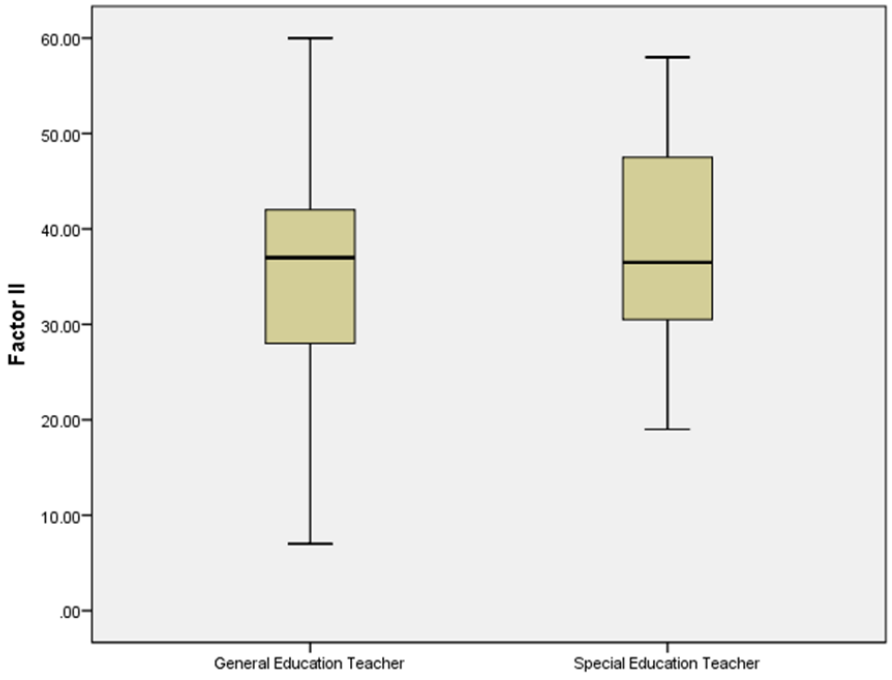

Figure 3. Box plots of Factor II score, by teacher role. For general education teacher: Mdn = 37, IQR =14, Q1 = 28, Q3 = 42; for special education teacher: Mdn = 36.5, IQR = 17, Q1 = 30.5, Q3 = 47.5.

Descriptive Statistics of Factor III

For Factor III (Perceived ability to teach students with disabilities), the possible range of scores was 0-18, with higher scores indicating more positive opinions regarding general-classroom teachers' ability to teach students with disabilities. The average scores for Factor III were 8.43 (*SD* = 4.07) and 6.21 (*SD* = 3.09) for general education teachers and special education teachers, respectively, indicating that both teachers had slightly positive opinions regarding general-classroom teachers' ability to teach students with disabilities.

From the box plot for Factor III scores (Figure 4), for general education teacher, *Mdn* = 8, *IQR* = 6, *Q1* = 6, *Q3* = 12, and any values not between -3 (*Q1*-1.5**IQR*) and 21 (*Q3*+1.5**IQR*) would be considered as outliers by SPSS. For special education teacher, *Mdn* = 6, *IQR* = 5.5, *Q1* = 4, *Q3* = 9.5, and any values not between -4.25 (*Q1*-1.5**IQR*) and 17.75 (*Q3*+1.5**IQR*) would be considered as outliers by SPSS. No outliers were found for Factor III scores.

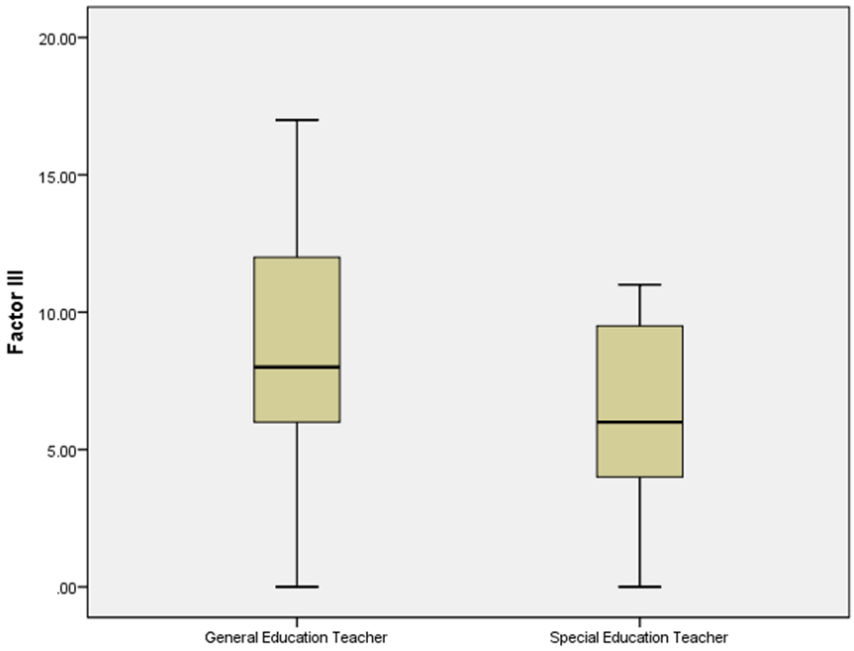

Figure 4. Box plots of Factor III score, by teacher role. For general education teacher: Mdn = 8, IQR =6, Q1 =6, Q3 = 12; for special education teacher: Mdn = 6, IQR = 5.5, Q1 = 4, Q3 = 9.5.

Descriptive Statistics of Factor IV

For Factor IV (Special versus integrated general education), the possible range of scores was 0-24, with higher scores indicating more positive opinions regarding using integrated general education to promote the academic growth of students with disabilities. The average scores for Factor IV were 10.68 (*SD* = 5.19) and 12.58 (*SD* = 4.86) for general education teachers and special education teachers, respectively, indicating that both teachers had moderately positive opinions regarding using integrated general education to promote the academic growth of students with disabilities.

From the box plot for Factor IV scores (Figure 5), for general education teacher, *Mdn* = 10, *IQR* = 6, *Q1* = 7, *Q3* = 13, and any values not between -2 (*Q1*-1.5**IQR*) and 22 (*Q3*+1.5**IQR*) would be considered as outliers by SPSS. For special education teacher, *Mdn* = 12, *IQR* = 7, *Q1* = 9, *Q3* =16, and any values not between -1.5 (*Q1*-1.5**IQR*) and 26.5 (*Q3*+1.5**IQR*) would be considered as outliers by SPSS.

One potential outlier (Factor IV score = 24) for general education teachers was identified. However, upon further examining, the two points were not considered as outliers as they were not far away from other data values. Thus, no outliers were found for Factor IV scores.

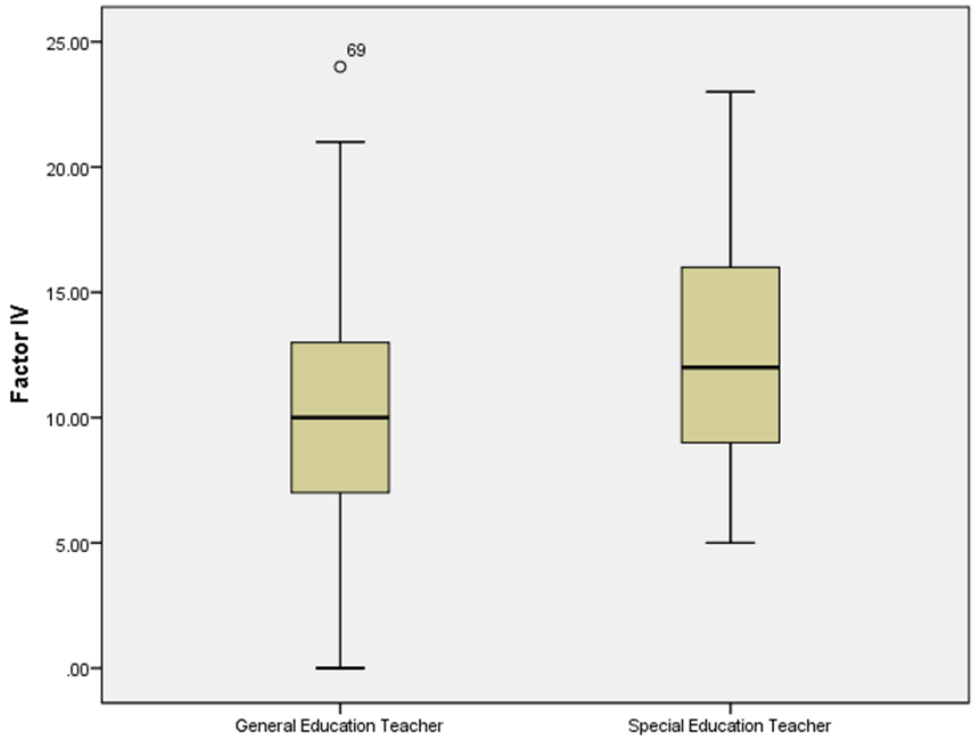

Figure 5. Box plots of Factor IV score, by teacher role. For general education teacher: Mdn = 10, IQR = 6, Q1 = 7, Q3 = 13; for special education teacher: Mdn = 12, IQR = 7, Q1 = 9, Q3 =16.

Descriptive Statistics of Overall ORI Scores

For overall ORI scores, the possible range of scores was 0-150, with higher scores indicating more positive opinions regarding integrated general education. The average scores for ORI were 86.67 (*SD* = 24.23) and 91.46 (*SD* = 20.33) for general education teachers and special education teachers, respectively, indicating that both teachers had moderately positive opinions regarding integrated general education.

From the box plot for overall ORI scores (Figure 6), for general education teacher, *Mdn* = 91, *IQR* = 32, *Q1* = 71, *Q3* = 103, and any values not between 23 (*Q1*-1.5**IQR*) and 151 (*Q3*+1.5**IQR*) would be considered as outliers by SPSS. For special education teacher, *Mdn* = 94, *IQR* = 29.5, *Q1* = 78, *Q3* = 107.5, and any values not between 33.75 (*Q1*-1.5**IQR*) and 151.75 (*Q3*+1.5**IQR*) would be considered as outliers by SPSS. No outliers were found for the overall ORI scores.

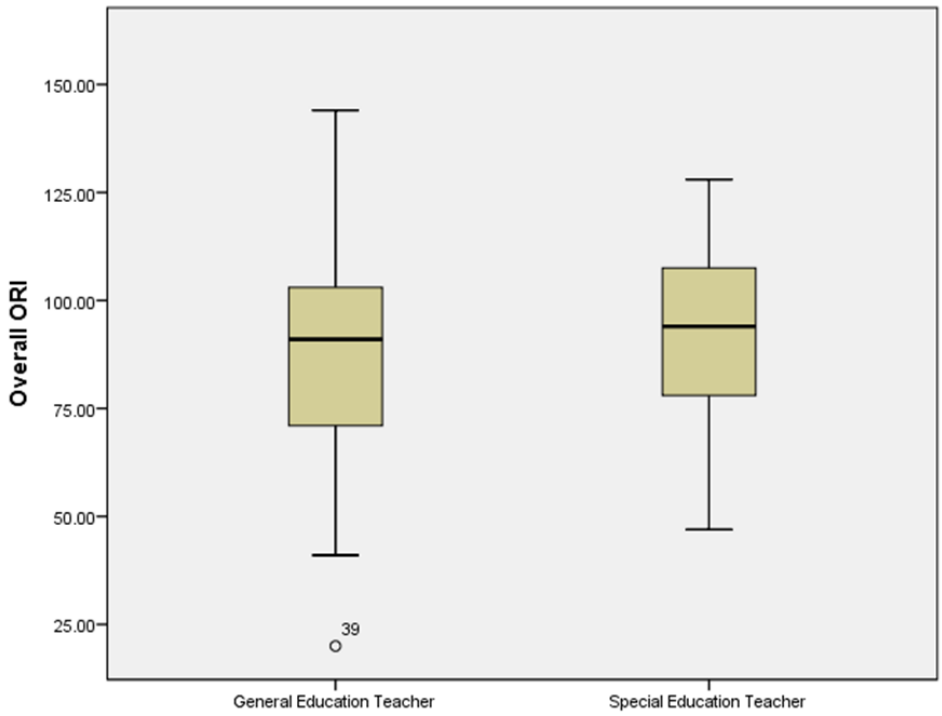

Figure 6. Box plots of overall ORI score, by teacher role. For general education teacher: Mdn = 91, IQR = 32, Q1 = 71, Q3 = 103; for special education teacher: Mdn = 94, IQR = 29.5, Q1 = 78, Q3 = 107.5.

Normality Examination of the Data

Skewness, kurtosis, and z-scores of skewness and kurtosis were also reported in Table 4. The data were slightly negatively skewed for (a) Factor I score of general education teachers, (b) Factor III score of general education teacher, and (c) overall ORI score of special education teachers. Data showed skewness < 0, ranging from -0.38 to -0.01 and the bulk of the data was at the right and the left tail was longer. The data furthered showed it was slightly platykurtic (kurtosis < 0, ranging from -0.46 to -0.15 and

its tail was thinner and its central peak was lower and broader, comparing to a normal distribution).

For Factor I score of special education teachers, Factor II score of general education teacher, and overall ORI score of general education teachers, the data were slightly negatively skewed (skewness < 0, ranging from -1.12 to -0.34). The bulk of the data was at the right and the left tail was longer and leptokurtic (kurtosis > 0, ranging from 0.08 to 0.70. Its tail was longer and fatter and its central peak was higher and sharper, comparing to a normal distribution.

For Factor II score of special education teachers, Factor III score of special education teachers, and Factor IV score of general and special education teachers, the data were slightly positively skewed, with skewness > 0, ranging from 0.02 to 0.49. The bulk of the data was at the left and the right tail was longer) and slightly platykurtic (kurtosis < 0, ranging from -0.97 to -0.11, its tail was thinner and its central peak was lower and broader, comparing to a normal distribution).

The z-scores of skewness and kurtosis were used to assess the normality of the data (overall and the four sub-scales scores of the ORI by teacher role (general education teacher vs. special education teacher)). A value of the z-score greater than 2.58 or lesser than -2.58 (i.e., two-tailed alpha levels of 0.01) indicated the data were not normally distributed (Fidell & Tabachnick, 2003). The z-scores of skewness ranged from -2.38 to 1.04 and the z-scores of kurtosis ranged from -1.05 to 0.76. As all z-scores were between -2.58 and 2.58, it was concluded that the data were normally distributed. Thus, parametric methods, such as two-sample *t* tests, were proposed to answer the research questions.

Results

In this section, the results of the two-sample *t* tests used to answer the overall and the four associated research questions by determining if there was a statistically significant difference in the overall and the four sub-scales (Factor I (Benefits of integration), Factor II (Integrated classroom management), Factor III (Perceived ability to teach students with disabilities), and Factor IV (Special versus integrated general education)) scores of the ORI between general education teachers and special education teacher are presented.

Overall Research Question

The overall research question for this study was: Are general education and special education teachers' opinions of inclusion classrooms with coteachers as evidenced by the Opinions Relative to Integration of Students With Disabilities (ORI) scale different? The hypotheses for the overall research question are as follows:

H_1: There is a statistically significant difference in general education and special education teachers' opinions of inclusion classrooms with coteachers as measured by the overall score of ORI.

H_0: There is no statistically significant difference in general education and special education teachers' opinions of inclusion classrooms with coteachers as measured by the overall score of ORI.

To answer the overall research question, a two-sample *t* test was conducted to determine if teachers' opinions of inclusion classrooms with coteachers (measured by the overall ORI score) was significantly different between the general education and special

education teachers. The results of the two-sample *t* test are presented in Table 5. The results of the Levene's test indicated that the assumption for homogeneity of variances was satisfied ($F(1, 75) = 0.459$, $p = 0.500$; Table 5). The average overall scores for ORI were 86.67 ($SD = 24.23$) and 91.46 ($SD = 20.33$) for general education teachers and special education teachers, respectively (Table 4). The results of the *t* test assuming homogeneity of variances indicated that there was no statistically significant difference in the overall ORI score ($t(75) = -0.841$, $p = 0.403$; Table 5).

The null hypothesis for the overall research question was not rejected, because p>.05. It was concluded that there was no statistically significant difference in general education and special education teachers' opinions of inclusion classrooms with coteachers as evidenced by Opinions Relative to Integration of Students with Disabilities (ORI) scale.

Table 5

Results of t Test for the Overall Research Question

	Levene's test		*t* test						
Equal variances								95% CI	
	F	*p*	*T*	*df*	*p*	Mean difference	*SE*	Lower	Upper
Assumed	0.459	0.500	-0.841	75	0.403	-4.78	5.69	-16.10	6.55
Not assumed			-0.898	52.501	0.373	-4.78	5.32	-15.45	5.89

Research Question 1

Research Question 1 asked: Are general education and special education teachers' opinions of the benefits of inclusion classrooms with coteachers significantly different? The hypotheses for Research Question 1 are as follows:

H_1: There is a statistically significant difference in teachers' opinions of benefits of inclusion classrooms with coteachers as measured by the Factor I score of ORI.

$H_{(1)0}$: There is no statistically significant difference in teachers' opinions of benefits of inclusion classrooms with coteachers as measured by the Factor I score of ORI.

To answer RQ1, a two-sample *t* test was conducted to determine if teachers' opinions of benefits of inclusion classrooms with coteachers (measured by Factor I (Benefits of integration) of ORI) was significantly different between the general education and special education teachers. The results of the two-sample *t* test are presented in Table 6. The results of the Levene's test indicated that the assumption for homogeneity of variances was satisfied ($F(1, 75) = 0.119$, $p = 0.731$; Table 6). The average scores for Factor I were 32.91 ($SD = 8.76$) and 34.83 ($SD = 9.39$) for general education teachers and special education teachers, respectively (Table 4). The results of the *t* test assuming homogeneity of variances indicated that there was no statistically significant difference in the Factor I (Benefits of integration) score ($t(75) = -0.875$, $p = 0.384$; Table 6).

The null hypothesis for the RQ1 was not rejected as the *p*-value was greater than 0.05. It was concluded that there was no statistically significant difference in general education and special education teachers' opinions of benefits of inclusion classrooms with coteachers as measured by the Factor I score of ORI.

Table 6

Results of t Test for Research Question 1

	Levene's test		*t* test						
								95% CI	
Equal variances	*F*	*p*	*T*	*df*	*p*	Mean difference	*SE*	Lower	Upper
Assumed	0.119	0.731	-0.875	75	0.384	-1.93	2.20	-6.32	2.46
Not assumed			-0.852	41.798	0.399	-1.93	2.26	-6.50	2.64

Research Question 2

Research Question 2 asked: Are general education and special education teachers' opinions of inclusive classroom management different in inclusion classrooms with coteachers? The hypotheses for Research Question 2 are as follows:

H_2: There is a statistically significant difference in the teachers' opinions of inclusive classroom management in inclusion classrooms with coteachers as measured by the Factor II score of ORI.

$H_{(2)0:}$ There is no statistically significant difference in the teachers' opinions of inclusive classroom management in inclusion classrooms with coteachers as measured by the Factor II score of ORI.

To answer RQ2, a two-sample *t* test was conducted to determine if teachers' opinions of inclusive classroom management (measured by Factor II (Integrated classroom management) of ORI) was significantly different between the general education and special education teachers. The results of the two-sample *t* test are presented in Table 7. The results of the Levene's test indicated that the assumption for homogeneity of variances was satisfied ($F(1, 75) = 0.163$, $p = 0.688$; Table 7). The

average scores for Factor II were 34.66 (*SD* = 10.90) and 37.83 (*SD* = 11.35) for general education teachers and special education teachers, respectively (Table 4). The results of the *t* test assuming homogeneity of variances indicated that there was no statistically significant difference in the Factor II (Integrated classroom management) score ($t(75) = -1.168$, $p = 0.247$; Table 7).

The null hypothesis for the RQ2 was not rejected because the *p*-value was greater than 0.05. It was concluded that there was no statistically significant difference in general education and special education teachers' opinions of inclusive classroom management as measured by the Factor II score of ORI.

Table 7

Results of t Test for Research Question 2

	Levene's test		*t* test						
Equal variances								95% CI	
	F	*p*	*t*	*df*	*p*	Mean difference	*SE*	Lower	Upper
Assumed	0.163	0.688	-1.168	75	0.247	-3.17	2.72	-8.58	2.24
Not assumed			-1.150	42.915	0.256	-3.17	2.76	-8.74	2.39

Research Question 3

Research Question 3 asked: Are general education and special education teachers' opinions of their ability to teach students with disabilities different in inclusion classrooms with coteachers? The hypotheses for Research Question 3 are as follows:

H_3: There is a statistically significant difference in the teachers' opinions of their ability to teach students with disabilities in inclusion classrooms with coteachers as measured by the Factor III score of ORI.

$H_{(3)0:}$ There is no statistically significant difference in the teachers' opinions of their ability to teach students with disabilities in inclusion classrooms with coteachers as measured by the Factor III score of ORI.

To answer RQ3, a two-sample *t* test was conducted to determine if teachers' opinions of inclusive classroom management (measured by Factor III (Perceived ability to teach students with disabilities) of ORI) was significantly different between the general education and special education teachers. The results of the two-sample *t* test are presented in Table 8. The results of the Levene's test indicated that the assumption for homogeneity of variances was satisfied ($F(1, 75) = 1.907$, $p = 0.171$; Table 8). The average scores for Factor III were 8.43 ($SD = 4.07$) and 6.21 ($SD = 3.09$) for general education teachers and special education teachers, respectively (Table 4). The results of the *t* test assuming homogeneity of variances indicated that there was a statistically significant difference in the Factor III (Perceived ability to teach students with disabilities) score ($t(75) = 2.383$, $p = 0.020$; Table 8).

The null hypothesis for the RQ3 was rejected because the p-value was less than 0.05. It was concluded that there was a statistically significant difference in general education and special education teachers' opinions of ability to teach students with disabilities different in inclusion classrooms with coteachers as measured by the Factor III score of ORI. In particular, general education teachers had statistically significantly more positive opinions regarding general-classroom teachers' ability to teach students with disabilities than special education teachers ($M = 8.43$, $SD = 4.07$ for general education teachers vs. $M = 6.21$, $SD = 3.09$ for special education teachers).

Table 8

Results of t Test for Research Question 3

	Levene's test		*t* test						
								95% CI	
Equal variances	*F*	*p*	*t*	*df*	*p*	Mean difference	*SE*	Lower	Upper
Assumed	1.907	0.171	2.383	75	0.020	2.23	0.93	0.36	4.09
Not assumed			2.640	57.555	0.011	2.23	0.84	0.54	3.91

Research Question 4

Research Question 4 asked: Are general education and special education teachers' opinions of the academic and social growth of students with disabilities different in inclusion classrooms with coteachers? The hypotheses for Research Question 4 are as follows:

H_4: There is a statistically significant difference in the teachers' opinions of the academic and social growth of students with disabilities in inclusion classrooms with coteachers as measured by the Factor IV score of ORI.

$H_{(4)0:}$ There is no statistically significant difference in the teachers' opinions of the academic and social growth of students with disabilities in inclusion classrooms with coteachers as measured by the Factor IV score of ORI.

To answer RQ4, a two-sample *t* test was conducted to determine if teachers' opinions of using integrated general education to promote the academic growth of students with disabilities (measured by Factor IV (Special versus integrated general education) of ORI) was significantly different between the general education and special education teachers. The results of the two-sample *t* test are presented in Table 9. The

results of the Levene's test indicated that the assumption for homogeneity of variances was satisfied ($F(1, 75) = 0.048$, $p = 0.827$; Table 9). The average scores for Factor IV were 10.68 ($SD = 5.19$) and 12.58 ($SD = 4.86$) for general education teachers and special education teachers, respectively (Table 4). The results of the *t* test assuming homogeneity of variances indicated that there was no statistically significant difference in the Factor IV (Special versus integrated general education) score ($t(75) = -1.520$, $p = 0.133$; Table 9).

The null hypothesis for the RQ4 was not rejected because the *p*-value was greater than 0.05. It was concluded that there was no statistically significant difference in general education and special education teachers' opinions of using integrated general education to promote the academic growth of students with disabilities as measured by the Factor IV score of ORI.

Table 9

Results of t Test for Research Question 4

	Levene's test		*t* test						
								95% CI	
Equal variances	*F*	*p*	*t*	*df*	*p*	Mean difference	*SE*	Lower	Upper
Assumed	0.048	0.827	-1.520	75	0.133	-1.90	1.25	-4.40	0.59
Not assumed			-1.558	47.298	0.126	-1.90	1.22	-4.36	0.55

Summary

The purpose of this quantitative study was to determine if differences in opinions exist between general education teachers and special education teachers regarding inclusion classrooms with coteachers as measured by the overall ORI score and the four sub-scales of ORI. There were one overall research questions and four associated

research questions. The final study sample consisted of 77 subjects (68.8% were general education teachers and 31.2% were special education teachers) who worked in inclusion classrooms with coteachers. Regardless of teaching role, majority of the teachers were female, taught at high schools, and had either a bachelor's degree or a master's degree. Two-sample *t* tests were used to answer the research questions.

The overall research question for this study was: Are general education and special education teachers' opinions of inclusion classrooms with coteachers significantly different as measured by the overall score of ORI different? The average scores for ORI were 86.67 (*SD* = 24.23) and 91.46 (*SD* = 20.33) for general education teachers and special education teachers, respectively, indicating that both teachers had moderately positive opinions regarding integrated general education. The results of the *t* test assuming homogeneity of variances indicated that there was no statistically significant difference in the overall ORI score ($t(75) = -0.841$, $p = 0.403$; Table 5). The null hypothesis for the overall research question was not rejected. It was concluded that there was no statistically significant difference in general education and special education teachers' opinions of inclusion classrooms with coteachers as evidenced by Opinions Relative to Integration of Students with Disabilities (ORI) scale.

Research Question 1 asked: Are general education and special education teachers' opinions of the benefits of inclusion classrooms with coteachers as measured by the Factor I (Benefits of integration) score of ORI? The average scores for Factor I were 32.91 (*SD* = 8.76) and 34.83 (*SD* = 9.39) for general education teachers and special education teachers, respectively, indicating that both teachers had considerately positive

opinions regarding benefits of coteaching. The results of the *t* test assuming homogeneity of variances indicated that there was no statistically significant difference in the Factor I (Benefits of integration) score ($t(75) = -0.875$, $p = 0.384$; Table 6). The null hypothesis for the RQ1 was not rejected. It was concluded that there was no statistically significant difference in general education and special education teachers' opinions of benefits of inclusion classrooms with coteachers as measured by the Factor I score of ORI.

Research Question 2 asked: Are general education and special education teachers' opinions of inclusive classroom management different in inclusion classrooms with coteachers as measured by the Factor II (Integrated classroom management) score of ORI? The average scores for Factor II were 34.66 ($SD = 10.90$) and 37.83 ($SD = 11.35$) for general education teachers and special education teachers, respectively, indicating that both teachers had moderately positive opinions regarding inclusive classroom management. The results of the *t* test assuming homogeneity of variances indicated that there was no statistically significant difference in the Factor II (Integrated classroom management) score ($t(75) = -1.168$, $p = 0.247$; Table 7). The null hypothesis for the RQ2 was not rejected. It was concluded that there was no statistically significant difference in general education and special education teachers' opinions of inclusive classroom management as measured by the Factor II score of ORI.

Research Question 3 asked: Are general education and special education teachers' opinions of their ability to teach students with disabilities different in inclusion classrooms with coteachers as measured by the Factor III (Perceived ability to teach students with disabilities) score of ORI? The average scores for Factor III were 8.43 (*SD*

= 4.07) and 6.21 (*SD* = 3.09) for general education teachers and special education teachers, respectively, indicating that both teachers had slightly positive opinions regarding general-classroom teachers' ability to teach students with disabilities. The results of the *t* test assuming homogeneity of variances indicated that there was a statistically significant difference in the Factor III (Perceived ability to teach students with disabilities) score ($t(75) = 2.383$, $p = 0.020$; Table 8). The null hypothesis for the RQ3 was rejected. It was concluded that general education teachers had statistically significantly more positive opinions regarding general-classroom teachers' ability to teach students with disabilities than special education teachers ($M = 8.43$, $SD = 4.07$ for general education teachers vs. $M = 6.21$, $SD = 3.09$ for special education teachers).

Research Question 4 asked: Are general education and special education teachers' opinions of the academic and social growth of students with disabilities different in inclusion classrooms with coteachers as measured by the Factor IV score (Special versus integrated general education) of ORI? The average scores for Factor IV were 10.68 (*SD* = 5.19) and 12.58 (*SD* = 4.86) for general education teachers and special education teachers, respectively, indicating that both teachers had moderately positive opinions regarding using integrated general education to promote the academic growth of students with disabilities. The results of the *t* test assuming homogeneity of variances indicated that there was no statistically significant difference in the Factor IV (Special versus integrated general education) score ($t(75) = -1.520$, $p = 0.133$; Table 9). The null hypothesis for the RQ4 was not rejected. It was concluded that there was no statistically significant difference in general education and special education teachers' opinions of

using integrated general education to promote the academic growth of students with disabilities as measured by the Factor IV score of ORI.

Throughout the analysis phase, it was obvious general education teachers and special education teachers mostly shared similar opinions regarding inclusion classrooms with coteachers. However, general education teachers had statistically significantly more positive opinions regarding general-classroom teachers' ability to teach students with disabilities than special education teachers. Chapter 5 describes the interpretation of the findings and limitations of the study. Additionally, Chapter 5 also highlights recommendations and implications for social change.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this quantitative descriptive research study was to determine whether differences in opinions exist between general education teachers and special education teachers regarding inclusion classrooms with coteachers. According to De Boer et al. (2011), effective coteaching practices are substantially dependent upon the teachers' acceptance of the practices. Once the teachers' opinions on inclusion are identified, coteacher strategies may be developed to address the academic difficulties of students with disabilities taught in a coteaching environment (De Boer et al., 2011; Srivastava et al., 2017). Therefore, to improve any deficiencies identified within a school system, teachers' opinions of coteaching were evaluated using the Opinions Relative to the Integration of Students with Disabilities scale. The scale focused on four factors: the benefits of inclusion, inclusive classroom management, a teacher's perceived ability to teach students with disabilities, and special education versus general education.

Overview of the Study

This quantitative study was designed to examine the overall opinions that general education and special education teachers have of inclusion classrooms with coteachers. In this study, the overall research question was the following: Are general education and special education teachers' opinions of inclusion classrooms with coteachers as evidenced by the Opinions Relative to Integration of Students With Disabilities (ORI) scale different? This descriptive-comparison quantitative study focused specifically on four research questions and their hypotheses:

Research Question 1: Are general education and special education teachers' opinions of the benefits of inclusion classrooms with coteachers significantly different? The hypotheses for Research Question 1 were as follows:

H_1: There is a statistically significant difference in teachers' opinions of benefits of inclusion classrooms with coteachers as measured by the Factor I score of ORI.

$H_{(1)0}$: There is no statistically significant difference in teachers' opinions of benefits of inclusion classrooms with coteachers as measured by the Factor I score of ORI.

Research Question 2: Are general education and special education teachers' opinions of inclusive classroom management different in inclusion classrooms with coteachers? The hypotheses for Research Question 2 were as follows:

H_2: There is a statistically significant difference in the teachers' opinions of inclusive classroom management in inclusion classrooms with coteachers as measured by the Factor II score of ORI.

$H_{(2)0}$: There is no statistically significant difference in the teachers' opinions of inclusive classroom management in inclusion classrooms with coteachers as measured by the Factor II score of ORI.

Research Question 3: Are general education and special education teachers' opinions of their ability to teach students with disabilities different in inclusion classrooms with coteachers? The hypotheses for Research Question 3 were as follows:

H_3: There is a statistically significant difference in the teachers' opinions of their ability to teach students with disabilities in inclusion classrooms with coteachers as measured by the Factor III score of ORI.

$H_{(3)0}$: There is no statistically significant difference in the teachers' opinions of their ability to teach students with disabilities in inclusion classrooms with coteachers as measured by the Factor III score of ORI.

Research Question 4: Are general education and special education teachers' opinions of the academic and social growth of students with disabilities different in inclusion classrooms with coteachers? The hypotheses for Research Question 4 were as follows:

H_4: There is a statistically significant difference in the teachers' opinions of the academic and social growth of students with disabilities in inclusion classrooms with coteachers as measured by the Factor IV score of ORI.

$H_{(4)0}$: There is no statistically significant difference in the teachers' opinions of the academic and social growth of students with disabilities in inclusion classrooms with coteachers as measured by the Factor IV score of ORI.

Interpretation of the Findings

The problem that prompted this study was that students with disabilities taught in inclusion classrooms with coteachers had low scores on standardized tests although there were two certified teachers present. The purpose of this quantitative descriptive research study was to determine whether differences in opinions existed between general education teachers and special education teachers regarding inclusion classrooms with

coteachers. Data were analyzed to determine whether there was a significant difference between the opinions of special education teachers and general education teachers regarding inclusion classrooms with coteachers. The following conclusions are based on the four factors that addressed the four research questions developed for this study.

Research Question 1 was as follows: Are general education and special education teachers' opinions of the benefits of inclusion different in inclusion classrooms with coteachers? The analysis results suggested that both general education and special education teachers had considerately positive opinions regarding benefits of coteaching, and their opinions were not statistically significantly different. These findings aligned with Muccio et al. (2014), who found that inclusion classrooms may have benefits. For example, as found in this study, mixed group interaction promotes understanding and acceptance of differences among students. Furthermore, the challenge of being in a general classroom will promote the academic growth and social interdependence of students with disabilities and help with their emotional development. Therefore, students with disabilities should be given every opportunity to function in the general classroom where possible and should not be isolated in a special education classroom.

Despites of the benefits of integration, there are some barriers to coteaching (Muccio et al., 2014). Those barriers include the classroom environment itself and the classroom not promoting academic success in students with disabilities. Those factors may cause a negative impact on the emotional development of students with disabilities. Odongo and Davidson (2016) expressed views similar to those of Muccio et al. (2014). Their survey suggested that the lack of resources was concerning and that without proper

resources, the inclusion classroom could prove to be challenging. Alper and her associates (1995) suggested that by being in inclusion classrooms with coteachers, general education students have the chance to develop admiration for the intricacy of human attributes; however, the study showed that the participants did not agree. The study further confirmed that the participants did not think that students without disabilities would develop an appreciation for individual differences as suggested by Alper and her associates (Alper et al., 1995; Baglieri & Shapiro, 2012).

Research Question 2 was the following: Are general education and special education teachers' opinions of inclusive classroom management different in inclusion classrooms with coteachers? The analysis results suggested that both general education and special education teachers had moderately positive opinions regarding inclusive classroom management and their opinions were not statistically significantly different. Furthermore, both general education and special education teachers believed that students with disabilities would exhibit adequate behaviors in the integrated classroom and would make an attempt to complete their assignments. They also believed that students with disabilities would not create confusion in the general classroom and would not require extra attention.

The findings for Research Question 2 (positive opinions regarding inclusive classroom management) largely align with the findings of Scott (2017). However, as Scott (2017) pointed out, classroom management can be a significant challenge in the inclusion classroom with coteachers. For example, general education teachers are likely to have less training than special education teachers in classroom management strategies;

therefore, teachers must decide what is needed to maintain success in an effort to minimize behavior issues (Scott, 2017). Because school administrators have an impact on classroom management, Nierengarten (2013) suggested that administrators should participate in professional development prior to or alongside general education and special education teachers. In addition, administrators should provide support to those coteachers in inclusion classrooms.

Research Question 3 was as follows: Are general education and special education teachers' opinions of their ability to teach students with disabilities different in inclusion classrooms with coteachers? The analysis results suggested that general education teachers had statistically significantly more positive opinions regarding general-classroom teachers' ability to teach students with disabilities than special education teachers did. Furthermore, the study found that a majority of the special education teachers did not believe that general education teachers have sufficient training to teach students with disabilities and did not think that general education teachers have the ability to work with students with disabilities.

The findings are consistent with those of Pancsofar and Petroff (2013), who maintained that special education teachers have a greater confidence and interest in teaching students with disabilities in an inclusion classroom. Marin (2014) found that teachers felt that professional development in teaching students with disabilities was needed in order for general education and special education teachers to learn how to effectively serve the needs of those students. The study further confirmed that teachers should receive professional development on the implementation process of coteaching as

concluded in this study. A study conducted by Kings-Sears et al. (2014) had alignment with this study as well by confirming that the teachers included in their study had challenges implementing coteaching.

Research Question 4 was the following: Are general education and special education teachers' opinions of the academic and social growth of students with disabilities different in inclusion classrooms with coteachers? The analysis results suggested that both general education and special education teachers had moderately positive opinions regarding using integrated general education to promote the academic growth of students with disabilities.

Opinions of the academic and social growth of students with disabilities were similar between the general education teachers and special education teachers. The teachers agreed that students with disabilities may be adequately served in an inclusion classroom with coteachers. Additionally, the teachers agreed that teaching students with disabilities is better done by a special education teacher versus a general education teacher. When students with disabilities are served in an inclusion classroom, the teachers agreed that significant changes are needed to inclusion classroom procedures. The findings for this research question are aligned with those of Ko and Boswell (2013). Because general education teachers lack experience teaching students with disabilities, those students are not best served in an inclusion classroom with coteachers. However, Ko and Boswell (2013) explained that professional development opportunities were needed to address those challenges. In contrast, Dukmak (2013) conducted a study that indicated that teachers favored the inclusion of students with disabilities. However, the

results showed that teachers with more years of experience had a less favorable attitude toward inclusion.

The research findings were based on statistically testing the hypotheses. A type 1 error (also known as a false positive) can occur when a researcher incorrectly rejects a true null hypothesis. In this study, a null hypothesis was rejected if a *p*-value was less than 0.05. A *p*-value of 0.05 meant that there was a 5% change of committing a type I error for each hypothesis testing. In other words, a *p*-value less than 0.05 indicates strong evidence against the null hypothesis, as there is less than a 5% probability that the null is correct.

In contrast, a type II error (also known as a false negative) can occur when a researcher fails to reject a null hypothesis when the alternative hypothesis is the true state of nature. In other words, a type II error is the error of failing to accept an alternative hypothesis when there is not adequate power. Therefore, the probability of making a type II error can be computed as 1-power of the test. To determine the type II error for each RQ, post-hoc power analyses were conducted using G*power version 3.1.9.4 (Faul et al., 2009) after the completion of data collection and data analysis to observe the power of the observed effect based on the actual sample size and data. Using the significance level of $\alpha = .05$, the actual sample size of $N = 77$, and observed effect size Cohen's *d* (Cohen, 1988) for two-sample *t* test = 0.21, 0.29, 0.58, and 0.37, the post hoc power was 13%, 21%, 64%, and 32% for RQ1, RQ2, RQ3, and RQ4, respectively (Table 10). The associated probabilities of making a type II error for RQ1, RQ2, RQ3, and RQ4 were then 0.87, 0.79, 0.36, and 0.68, respectively (Table 10).

Table 10

Post Hoc Power Analysis and Type II Error Computation

	M_1	M_2	SD_1	SD_2	SD_{pooled}	Cohen's d	Power	β
RQ1	32.91	34.83	8.76	9.39	8.96	0.21	0.13	0.87
RQ2	34.66	37.83	10.90	11.35	11.04	0.29	0.21	0.79
RQ3	8.43	6.21	4.07	3.09	3.80	0.58	0.64	0.36
RQ4	10.68	12.58	5.19	4.86	5.09	0.37	0.32	0.68

Note. $N_1 = 53$; $N_2 = 24$. $SD_{pooled} = \sqrt{((N_1 - 1)SD_1^2 + (N_2 - 1)SD_2^2)/((N_1 + N_2 - 2))}$. Cohen's $d = |(M_1 - M_2)/SD_{pooled}|$. β = probability of making a type II error.

Theoretical Framework

The theoretical framework used for this study was Johnson and Johnson's cooperative learning theory (Johnson et al., 2013). Johnson and Johnson's cooperative theory serves as an illustration of how theory substantiated by research applies to instructional practice. This conceptualization of cooperative learning is generative for grasping how individuals interact with each other, hence determining the outcome of their interactions. Working in a joint effort to achieve common goals implies cooperative work among people. Individuals who participate in cooperative situations pursue results that are favorable to themselves and others within the group. When applying the Johnson and Johnson cooperative learning theory to an inclusive classroom, not only do students with disabilities and those without disabilities have to cooperate with one another, but the general education and special education teachers must also collaborate with each other. Their cooperation with one another will model the behavior expected of the students.

Being able to learn together can have profound effects on students and teachers (Johnson et al., 2013).

The first research question addressed whether general education and special education teachers' opinions of the benefits of inclusion are different in inclusion classrooms with coteachers. Based on the theoretical framework for cooperative learning, for Research Question 1, it was expected special education and general education teachers believed that there is a positive interdependence among the general education and special education students with disabilities, proving that there are benefits of inclusion. The findings of RQ1 supported this argument as the analysis results suggested that both general education and special education teachers had considerately positive opinions regarding benefits of coteaching. An integrated classroom will help promote understanding and acceptance of differences among students with and without disabilities. Additionally, placing students with disabilities in a general classroom will help improve their academic performance, social interdependence, and emotional development.

Research Question 2 concerned whether general education and special education teachers' opinions of inclusive classroom management are different in inclusion classrooms with coteachers. For Research Question 2, based on the theoretical framework of cooperative learning, it was expected that inclusion classrooms would encourage face-to-face, promotive interaction to engage students in the classroom as an effort to eliminate classroom management issues. Additionally, it was expected that the participants would promote social skills to be taught just as purposefully as academic

skills. The findings for RQ2 largely align with these views, as the analysis results suggested that both general education and special education teachers had moderately positive opinions regarding inclusive classroom management. Both general education and special education teachers believed that when placed in the integrated classroom, students with disabilities would exhibit adequate behaviors, would not create confusion in the general classroom, and would not require extra attention.

Research Question 3 stated, are general education and special education teachers' opinions of their ability to teach students with disabilities different in inclusion classrooms with coteachers. For this research question, the element of group processing was the focus. It was expected that participants varied their teaching formats, maintained student involvement, encouraged social skills, and ensured clear expectations to their students. The results of the study showed teachers agreed that general education teachers do not have the necessary ability to teach students with disabilities. The teachers agreed that general education teachers had not had sufficient training to teach students with disabilities. By including students with disabilities in an inclusion classroom, extensive training is necessary.

Research Question 4 stated, are general education and special education teachers' opinions of the academic and social growth of students with disabilities different in inclusion classrooms with coteachers. Based on Cooperative Learning as a theoretical framework, it was expected for the participants to stimulate academic and social growth through the elements of accountability and social skills. The findings of RQ4 supported this argument as the analysis results suggested that both general education and special

education teachers had moderately positive opinions regarding using integrated general education to promote the academic growth of students with disabilities. Though, the teachers agreed that when students with disabilities are serviced in an inclusion classroom, the teachers agree that significant changes are needed to the inclusion classroom procedures.

Limitations of the Study

Limitations within a study personify the potential weaknesses and are generally out of the researcher's control (Creswell, 2013). The following limitations have been identified in this study. First, the study relied on the use of self-reported data, which cannot guarantee that participants responded honestly. However, because the survey is voluntary and will be delivered privately on-line, allowing participants to complete it at their convenience, these conditions may help remove some possible motives to answer deceptively.

Second, this study was conducted in one region of the large district and restricted to only general education and special education coteachers. Teachers from other content areas may have their perspectives on coteaching similar or different to those identified in this study. Therefore, the findings from this study cannot be generalized to the entire district.

Third, teachers may not respond to the survey sent to their work e-mail addresses since it was not coming directly from a school administrator. In this study, the survey and a cover letter were electronically sent to each participant via their district e-mail by the researcher. To increase the response rate, the researcher had asked the administrators to

make known that the survey came from a teacher conducting an educational research, and the research results may be beneficial to all teachers.

Finally, because only quantitative data were collected, the survey used to collect data restricts the teachers from detailing their responses and providing greater insight on personal experiences. Allowing teachers to participate in interviews and focus groups would allow teachers to elaborate on their responses. Conducting interviews and including focus groups could be done in future studies.

Recommendations

The purpose of this quantitative descriptive research study was to determine if differences in opinions exist between general education teachers and special education teachers regarding inclusion classrooms with coteachers. The low scores on standardized tests for students who are taught in an inclusion classroom are significant and indicated a need to reassess the implementation of coteaching. If this quantitative study is to be replicated, it is recommended that the study be inclusive of the entire district. By doing so, the study would include teachers who may have served as coteachers in the past or who will possibly serve in the near future. This study narrowed its investigation to one region of the large district and was restricted to only general education and special education coteachers.

The second recommendation is to ensure that all administrators at the school level understand the importance of the study to ensure it is communicated to the teachers. This coincides with the study conducted by Odongo and Davidson (2016) that was done to specifically to raise awareness among districts and all stakeholders regarding issues

teachers face in the inclusion classroom. Also, it is recommended that when seeking participants for the study, one should ask to be added to the agenda of a faculty meeting so teachers can complete the survey in their presence during the faculty meeting. Being added to the agenda to explain the purpose of the survey in-depth will ensure a better response rate among the teachers.

Another recommendation is to conduct more in-depth research on the implementation and use of coteaching using a mixed methods research design. Using a mixed-methods research design will allow participants to explain their responses in interviews or focus groups. The data might help shape professional development for teachers. Teachers prefer to receive meaningful training. Lee et al. (2015) found that teachers who receive proper professional development are stronger advocates for inclusion regardless of their roles. The teacher opinions should be used when pairing teachers to collaborate as coteachers in inclusion classrooms. As Scruggs and Mastropieri (2017) suggested, collaboration is more successful when teachers are given a choice to work with one another.

Finally, as Johnson and Johnson's cooperative learning theory (Johnson et al., 2013) emphasized, the effectiveness of an inclusive classroom highly depends on the cooperative work among the stakeholders, including both students with/without disabilities and the general education and special education teachers. Thus, it is recommended that future studies could study the opinions of both stakeholders (students and teachers) regarding inclusive classrooms.

Implications

By identifying the opinions of general education teachers and special education teachers regarding inclusion classrooms with coteachers, it is possible to identify the teachers' opinions of the benefits of inclusion. Additionally, it is possible to determine their opinions about inclusive classroom management, their perceived ability to teach students with disabilities, and their view of special education in contrast to an inclusive general education. If there are differences between the opinions of general education teachers and special education teachers regarding inclusion classrooms with coteachers, then administrators, district level personnel, teachers and other stakeholders can identify areas of improvement in the implementation and use of coteaching. Furthermore, the outcome of this study may influence the district, particularly the Department of Special Education, to conduct more in-depth research on the implementation and use of coteaching. The research could yield data to stimulate student growth, help determine how to minimize the achievement gap between students with disabilities, and those without disabilities and improve overall academic success. Students with disabilities, students without disabilities, general education teachers, special education teachers, and administrators will benefit from this study.

The potential contributions of the study include providing special education teachers and general education teachers a more comprehensive professional development opportunity focused on inclusive classroom management since it was identified as a significant challenge for both general education and special education teachers. This will allow teachers to minimize as many behavior issues as possible. The potential

contributions of the study to advance the practice of inclusion and coteaching include - providing school district personnel with a thorough understanding of the expectations and needs of the coteachers within inclusion classrooms while providing a more effective inclusion program for special education students and general education students. Additionally, school district personnel may offer useful professional development for general education teachers and special education teachers in regards to inclusion classrooms with coteachers. The implications for positive social change include using the opinions and attitudes of teachers in various decision-making processes to potentially identify ways to increase teacher success while improving student achievement in the general education and the special education populations.

Conclusion

A large, suburban school district in Georgia uses coteaching as a strategy to teach students with disabilities in a general education setting with coteachers. The problem that prompted this study was students with disabilities taught in inclusion classrooms with coteachers have low scores on standardized tests, although there are two certified teachers present. The purpose of this quantitative descriptive research study was to determine if differences in opinions exist between general education teachers and special education teachers regarding inclusion classrooms with coteachers. The theoretical basis for this study was Johnson and Johnson's cooperative learning theory (Johnson et al., 2014).

The findings of the research questions suggested that both general education and special education teachers had positive opinions regarding benefits of coteaching,

inclusive classroom management, and regarding using integrated general education to promote the academic growth of students with disabilities. However, their opinions were not statistically significantly different in these three aspects.

The analysis results suggested that general education teachers had statistically significantly more positive opinions regarding general-classroom teachers' ability to teach students with disabilities than special education teachers. Furthermore, the study found that majority of the special education teachers did not believe that general education teachers have sufficient training to teach students with disabilities and did not think general education teachers have the ability necessary to work with students with disabilities.

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Appendix A: Opinions Relative to the Integration of Students With Disabilities

General Directions: Educators have long realized that one of the most important influences on a child's educational progress is the classroom teacher. The purpose of this questionnaire is to obtain information that will aid school systems in increasing the classroom teacher's effectiveness with students with disabilities placed in his or her classroom. Please circle the number to the left of each item that best describes your agreement or disagreement with the statement. There are no correct answers: the best answers are those that honestly reflect your feelings. There is no time limit, but you should work as quickly as you can.

Please respond to every statement.

KEY

-3: I disagree very much
-2: I disagree pretty much
-1: I disagree a little
+1: I agree a little
+2: I agree pretty much
+3: I agree very much

-3	-2	-1	+1	+2	+3	1. Most students with disabilities will make an adequate attempt to complete their assignments.
-3	-2	-1	+1	+2	+3	2. Integration of students with disabilities will necessitate extensive retraining of general-classroom teachers.
-3	-2	-1	+1	+2	+3	3. Integration offers mixed group interaction that will foster understanding and acceptance of differences among students.
-3	-2	-1	+1	+2	+3	4. It is likely that the student with a disability will exhibit behavior problems in a general classroom.
-3	-2	-1	+1	+2	+3	5. Students with disabilities can best be served in general classrooms.
-3	-2	-1	+1	+2	+3	6. The extra attention students with disabilities require will be to the detriment of the other students.
-3	-2	-1	+1	+2	+3	7. The challenge of being in a general classroom will promote the academic growth of the student with a disability.
-3	-2	-1	+1	+2	+3	8. Integration of students with disabilities will require significant changes in general classroom procedures.
-3	-2	-1	+1	+2	+3	9. Increased freedom in the general classroom creates too much confusion for the student with a disability.
-3	-2	-1	+1	+2	+3	10. General-classroom teachers have the ability necessary to work with students with disabilities.
-3	-2	-1	+1	+2	+3	11. The presence of students with disabilities will not promote acceptance of differences on the part of students without disabilities.

Please respond to every statement.

KEY

-3: I disagree very much
-2: I disagree pretty much
-1: I disagree a little
+1: I agree a little
+2: I agree pretty much
+3: I agree very much

-3	-2	-1	+1	+2	+3	12. The behavior of students with disabilities will set a bad example for students without disabilities.
-3	-2	-1	+1	+2	+3	13. The student with a disability will probably develop academic skills more rapidly in a general classroom than in a special classroom.
-3	-2	-1	+1	+2	+3	14. Integration of the student with a disability will not promote his or her social independence.
-3	-2	-1	+1	+2	+3	15. It is not more difficult to maintain order in a general classroom that contains a student with a disability than in one that does not contain a student with a disability.
-3	-2	-1	+1	+2	+3	16. Students with disabilities will not monopolize the general-classroom teacher's time.
-3	-2	-1	+1	+2	+3	17. The integration of students with disabilities can be beneficial for students without disabilities.
-3	-2	-1	+1	+2	+3	18. Students with disabilities are likely to create confusion in the general classroom.
-3	-2	-1	+1	+2	+3	19. General-classroom teachers have sufficient training to teach students with disabilities.
-3	-2	-1	+1	+2	+3	20. Integration will likely have a negative effect on the emotional development of the student with a disability.
-3	-2	-1	+1	+2	+3	21. Students with disabilities should be given every opportunity to function in the general classroom where possible.
-3	-2	-1	+1	+2	+3	22. The classroom behavior of the student with a disability generally does not require more patience from the teacher than does the classroom behavior of the student without a disability.
-3	-2	-1	+1	+2	+3	23. Teaching students with disabilities is better done by special- than by general-classroom teachers.
-3	-2	-1	+1	+2	+3	24. Isolation in a special classroom has a beneficial effect on the social and emotional development of the student with a disability.
-3	-2	-1	+1	+2	+3	25. The student with a disability will not be socially isolated in the general classroom.

THANK YOU FOR YOUR ASSISTANCE IN RESPONDING TO THIS QUESTIONNAIRE

Barbara Larrivee
Richard F. Antonak

ORI Scoring Key					
Item #	+/–	Factor	Item #	+/–	Factor
1	+	II	14	–	I
2	–	III	15	+	II
3	+	I	16	+	II
4	–	II	17	+	I
5	+	IV	18	–	II
6	–	II	19	+	III
7	+	I	20	–	I
8	–	IV	21	+	I
9	–	II	22	+	II
10	+	III	23	–	IV
11	–	I	24	–	I
12	–	II	25	+	II
13	+	IV			

To score the ORI:

1. Positively score the 12 items that are worded negatively by reversing the sign of the response (i.e., from + to – , or from – to +).
2. Sum the 25 item responses.
3. Add a constant of 75 to the total to eliminate negative scores.
4. Scores range from 0 to 150 with a higher score representing a more favorable attitude toward the integration of students with disabilities into general education classrooms.
5. It is suggested that protocols with omitted responses to 4 or more items should not be scored. Protocols with omitted responses are scored as described above, with the omitted responses assigned a value of zero.

Preliminary research data suggest there may be four orthogonal factors that account for the variation in the ORI item responses. Scores for these four factors are determined by summing the positively-scored item responses as indicated in the table below. The use of factor scores as subscale scores for differential prediction of attitudes has not been investigated. The computation of ORI subscale scores cannot be defended until these factors can be shown to be homogeneous, reliable, and specific, and until they consistently predict valid indicators of favorable attitudes of education professionals.

Factor	# Items	# + / #–	Range	Factor Title
I	8	4+ / 4–	0 to 48	Benefits of Integration
II	10	5+ / 5–	0 to 60	Integrated Classroom Management
III	3	2+ / 1–	0 to 18	Perceived Ability to Teach Students with Disabilities
IV	4	2+ / 2–	0 to 24	Special versus Integrated General Education

Reference citation:

Antonak, R. F., & Larrivee, B. (1995). Psychometric analysis and revision of the Opinions Relative to Mainstreaming Scale. *Exceptional Children, 62*, 139-149.

Appendix B: Letter Requesting Permission to Use Survey and Approval

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(p) 404-567-1247 (f) 678-884-6924

Richard F. Antonak, EdD
rfantonak@me.com

Dear Dr. Antonak,

Re: Opinions Relative to Integration of Students with Disabilities (ORI)

I am a doctoral student from Walden University writing my doctoral study tentatively titled, *Teacher Perceptions on the effects of co-teaching on student achievement*, under the direction of my doctoral study committee chaired by Dr. Mel Finkenberg.

I would like your permission to reproduce your revised scale, Opinions Relative to Integration of Students with Disabilities, in my research study. I would like to use and print your survey under the following conditions:

- I will use this survey only for my research study and will not sell or use it with any compensated or curriculum development activities.
- I will include the copyright statement on all copies of the instrument.

If these are acceptable terms and conditions, please indicate so by signing one copy of this letter and return it to me either through postal mail, fax, or e-mail mentioned above.

Sincerely,

Tashina G. White
Doctoral Candidate

Richard F. Antonak

RFAntonak@me.com

Dear Inquirer:

Thank you for your inquiry about the scale entitled *Opinions Relative to Mainstreaming Special-Needs Children.* This scale was completely revised and is now entitled *Opinions Relative to the Integration of Students with Disabilities* (ORI). I have enclosed with this letter a copy of the *ORI* and a scoring key for your use.

You may reproduce the *ORI* in any form that suits your research needs. The only requirement for the use of the instrument is that you ascribe authorship to Drs. Larrivee and Antonak, using the citation below, in any publication that may arise from your use of it.

Good luck with your research.

Very truly yours,

s/Richard F. Antonak

Richard F. Antonak, Ed.D.
Retired

Appropriate citation:

Antonak, R. F., & Larrivee, B. (1995). Psychometric analysis and revision of the Opinions Relative to Mainstreaming Scale. *Exceptional Children, 62,* 139-149.

Appendix C: Teacher Demographics Questionnaire

Please respond to all items in this questionnaire.

1. Gender: _____Female _____Male

2. Assigned School:

3. Please indicate your educator certificate level: _____ (ex. 4 (bachelors), 5 (masters), 6 (specialist or ABD), 7 (doctorate).

4. Total years of full-time teaching experience in a public school: _____

5. _____General Education Teacher _____Special Education Teacher