

ELEMENTARY SCHOOL INCLUSION FOR STUDENTS WITH AUTISM SPECTRUM
DISORDER: ATTITUDES OF GENERAL EDUCATION TEACHERS

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ABSTRACT

The emphasis on teaching all students in the general education setting requires school personnel to reimagine the delivery of service for students with disabilities, including those with autism spectrum disorder (autism). This delivery of service relies heavily on the general education teacher's ability to meet the varying learning needs of his or her students. This study explored if the general education teacher's attitude toward students with autism in his or her classroom is related to participation of students with autism in the general education classroom as well as collaboration between the general education and special education teacher. These variables and their relationships were studied by administering an electronic survey to general education teachers in Indiana elementary schools. The findings of this study show that there is a relationship between attitude and participation and collaboration.

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CHAPTER 1

INTRODUCTION

Beginning in the 1950s disability advocates worked to extend equal protections for education beyond race to include individuals with disabilities (Alquraini, 2013). The efforts of disability advocates have been successful in pushing legislators to create laws that work toward equal education for all (Alquraini, 2013). Most recently, Congress reauthorized the Individuals with Disabilities Education Act (IDEA) in 2004, with the intention of aligning it to the No Child Left Behind Act (NCLB; Huefner, 2008). IDEA and NCLB emphasize the need for highly qualified teachers to work with students with disabilities in the general education setting “to the maximum extent appropriate” (Howard, 2004, p. 167). This means that now, more than ever, general education teachers are working alongside special education teachers to educate students with disabilities (Murawski, 2010).

Statement of the Problem

The emphasis on teaching students in the general education setting requires school personnel to reimagine the delivery of service to students with disabilities. General education teachers are left on their own for most of the day to teach their students, including those with disabilities (Miller, Wienke, & Savage, 2000). Therefore schools rely heavily on collaboration between general education and special education teachers in order to meet the needs of all students (Idol, 2006); however, the outcomes of this collaboration are not always positive. The

extent to which general education and special education teachers lack common experiences affects their ability to collaborate in the school setting and truly understand each other's perspectives. This causes both groups to make assumptions about one another and creates rifts in the working relationship (Robinson & Buly, 2007). Effective collaboration requires "joint planning, decision making and problem solving directed toward a common goal" (Stanovich, 1996, p. 40).

Attitudes of teachers are also essential to the delivery of effective educational services for students with disabilities (Allday, Neilsen-Gatti, & Hudson, 2013; Friend, 2000; Idol, 2006; Stanovich, 1996). Teachers' attitudes are critical because in many instances general education teachers are providing the majority of instruction to students with disabilities (Park & Chitiyo, 2011). Due to the substantial increase in identification of students with autism spectrum disorder (autism) learning in the general education setting, it is important to explore how general education teachers' attitudes toward students with autism influence the participation of these students in the general education classroom as well as collaboration between general education teachers and special education teachers.

Research on attitudes, collaboration, and participation as they relate to students with autism is critical due to the undesirable outcomes individuals with autism are currently facing in the educational setting. The measures we use to evaluate student success include scores on standardized tests, graduation rates, and employment after high school. Unfortunately, these measures have shown little to no significant increase for students with disabilities since the emphasis has recently been placed on inclusive education (Lipsky, 2005). As educators, we must figure out how to make the most of inclusion for students with autism and turn the tide of negative outcomes for these individuals.

Purpose of Study

The purpose of this quantitative study was to determine if the attitude of the general education teacher toward students with autism is related to collaboration between the general education teacher and special education teacher, as well as participation of students with autism in the general education classroom (Figure 1). This study utilized a web-based survey to assess Indiana elementary general education teachers' attitudes toward students with autism as they relate to collaboration with the special education teacher and participation of students with autism in the general education classroom. The independent variable for this study was the attitude of the general education teacher toward students with autism. The two dependent variables in this study were collaboration between the general education teacher and special education teacher and participation of students with autism in the general education classroom.

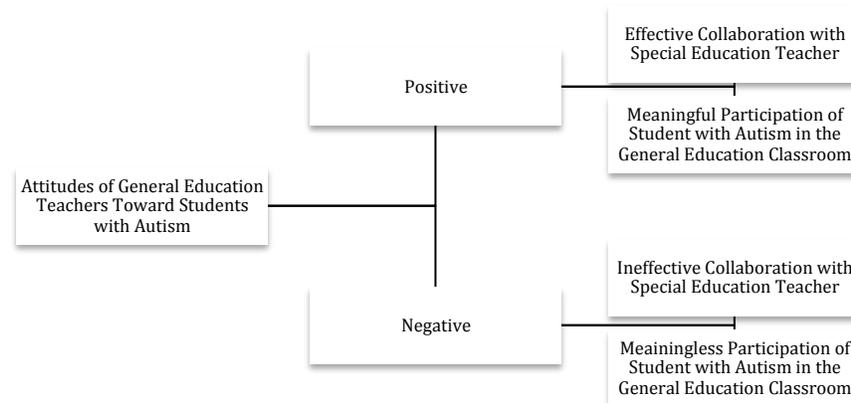


Figure 1. Relationship between variables.

Research Questions

RQ1: Does the attitude of the general education teacher toward students with autism relate to participation of students with autism in the general education classroom?

RQ2: Does the attitude of the general education teacher toward students with autism relate to collaboration between the general education teacher and special education teacher?

Null Hypotheses

H₀1: The attitude of the general education teacher toward students with autism does not impact participation of students with autism in the general education classroom.

H₀2: The attitude of the general education teacher toward students with autism does not impact collaboration between the general education teacher and special education teacher.

Significance of Study

This study was significant because adds to the body of research regarding supporting students with autism in the general education classroom. There is research that looks at how attitudes of general education teachers are developed (Park & Chitiyo, 2011) and this study was intended to expand on that research by investigating relationships between attitudes, collaboration, and student participation. The research surrounding co-teaching and collaboration between general education teachers and special education teachers in an inclusive setting is extensive (Cook & Friend, 2010; Forlin, Earle, Loreman, & Sharma, 2011; Murawski, 2010). However, how these relate specifically to students with autism still needs to be examined further due to the increase in students with autism learning in the general education classroom. Additionally, there is research regarding participation of students with disabilities in general education classrooms (Jorgensen & Lambert, 2012), but there is room for further research regarding meaningful participation of students with autism in the general education classroom.

It was my intention to contribute to the body of research regarding attitudes, collaboration, and student participation in the general education setting. Through my research administrators, general education teachers, and special education teachers are able to gain insights to improve outcomes for students with autism.

Definitions

For the purpose of this study, the following terms were defined to support clarity in understanding this study. These definitions were developed through literature review and my personal experience.

Individualized Education Program (IEP) is defined as a written document created by the case conference committee that describes how the student will access grade-level content and the special education and related services the student requires to participate in the educational environment (Individuals with Disabilities Education Act, 2004).

Case conference committee (CCC) is defined as the group of people responsible for developing, reviewing, revising, and implementing a student's Individualized Education Program (Individuals with Disabilities Education Act, 2004).

Least restrictive environment (LRE) is defined as the extent to which it is appropriate for students with disabilities to be educated with their nondisabled peers (Individuals with Disabilities Education Act, 2004).

Student with disability is defined as a student who meets eligibility criteria for special education services (Individuals with Disabilities Education Act, 2004).

General education setting is defined as a classroom in which students with and without disabilities learn general education curriculum alongside one another.

Special education setting is defined as a classroom in which students with disabilities are provided specialized instruction by a special education teacher in order to progress in the general education curriculum or alternative curriculum.

Elementary is defined as any school educating students in grades K-6, or any combination thereof.

Attitude is defined as the cognitive, behavioral, and affective influences on the way a person perceives others.

Participation is defined as taking on a meaningful role in learning and social activities in the general education environment.

Autism Spectrum Disorder (autism) is defined as a lifelong developmental disability, according to the Diagnostic Statistical Manual of Mental Disorders, Fifth Edition (American Psychiatric Association, 2013).

Assumptions

Assumptions of this study included

1. The sample represents the population of Indiana elementary general education teachers who have students receiving special education services with an eligibility of autism in their classrooms.
2. The self-reporting tool is a valid measure.
3. Self-reporting of the general education teacher's attitudes toward students with autism is accurate.
4. Self-reporting of student participation in general education setting is accurate.
5. Self-reporting of the collaboration between the general education teacher and special education teacher is accurate.

Limitations

Limitations of this study included

1. The elementary general education teachers who participate in this study were a sample of Indiana elementary general education teachers, not a national sample.

2. The self-reporting web-based survey instrument was distributed to Indiana elementary general education teachers on the Indiana Department of Education 2015-2016 roster of general education teachers. The teachers had the option of whether or not to participate.
3. Participants' self-reporting may not reflect reality.
4. Participants were not asked to rate the severity of the impact autism has on students.

Delimitations

This study was limited to elementary general education teachers in Indiana who have students with autism who were educated for at least part of the day in his or her classroom.

Organization of the Study

This document is organized into five chapters. Chapter 1 contains an introduction, statement of the problem, purpose of the study, research questions, null hypotheses, significance of the study, definitions of terms, assumptions, limitations, delimitations, and organization of the study. Chapter 2 contains a literature review including (a) special education history and case law, (b) inclusion, and (c) concept of attitude. Chapter 3 contains the research questions, the study's theoretical base, research design, methodology, and data analysis. Chapter 4 contains the correlation analysis of the variables and the measures of reliability and validity for the survey instrument. Chapter 5 contains my explanation of the results including implications for practitioners and areas for future research.

CHAPTER 2

REVIEW OF LITERATURE

This review of literature focuses on these major areas: (a) special education history and case law, (b) inclusion, and (c) concept of attitude.

Special Education History and Case Law

Flaws in the education system raise serious issues of inequality as they pertain to meeting the diverse needs of students. Inequalities and flaws are part of the system, yet systematic changes are not made to rectify these issues. Changes that tinker around the edges do nothing to address the specific needs of all students (Florian, 2008). These inequalities are especially stark when considering the needs of special education students.

School systems are utilitarian in structure and are organized around the discredited but widely held idea that intelligence is fixed, measurable and normally distributed. Thus, in the familiar educational parlance, what is ordinarily provided will meet the needs of most learners, while a few at the tail ends of the distribution may require something “additional” to or “different” from that which is ordinarily available. (Florian, 2008, p. 203)

Special education was created to address these inequalities for individuals with disabilities and provide specialized instructional strategies to meet their educational needs. Historically, students with disabilities have been segregated in our schools due to the risk of

disruption to the learning of general education students (Howard, 2004). It is only recently through legislation and court rulings that special education students have been welcomed into the general education setting.

Education for All Handicapped Children Act, 1975

The civil rights movement of the 1950s and 1960s was a catalyst for the creation of equal educational opportunities for all, including those with disabilities. When the *Brown v. Board of Education* (1954) court case determined that separate schools are inherently unequal because they negate both equality and opportunity, disability advocates saw an opening to push for an agenda of education equality (Howard, 2004). In the early to mid 1960s advocates for individuals with disabilities pressed for inclusion into neighborhood communities and schools and out of institutions (Alquraini, 2013). By the early 1970s courts began considering the extent to which students with disabilities should be educated in general education schools as opposed to special, separate schools (Alquraini, 2013). In the 1972 *Pennsylvania Association for Retarded Children (PARC) v. Commonwealth of Pennsylvania* court case, the ruling stated that “placement in a regular public school is preferable to placement in a special school class [and that] placement in a special school class is preferable to placement in any other type of program of education and training” (Alquraini, 2013, p. 153). This opened the door for Congress to pass the 1975 Education for All Handicapped Children Act (EHA) and provide funding for special education services (Connor & Ferri, 2007; Murawski, 2010). This federal law ensures “specially designed instruction, at no cost to parents, to meet the unique needs of a child with a disability” (Connor & Ferri, 2007, p. 67). This has come to be known as a free appropriate public education (FAPE; Connor & Ferri, 2007). All 50 states were required to comply with the law due to the funding that was tied to implementation of the new educational requirements (Howard, 2004).

Even though the EHA mandated that students with disabilities must be educated in general education schools, the classrooms in which students with disabilities received their instruction were largely separate from their general education peers. The EHA provided little guidance on where students with disabilities were to be educated other than stating that educating them in separate schools does not afford them an equal education (Howard, 2004). The EHA stated that students with disabilities should be educated in the least restrictive environment (LRE) that provides ample opportunities for them to interact with their general education peers (Howard, 2004). Parents and special education advocates have been working to clarify the LRE for students with disabilities through a series of lawsuits brought against school districts (Alquraini, 2013). Federal circuit courts have been interpreting Congressional intent of EHA and the LRE provision (Howard, 2004). This has caused a lack of uniformity of interpretation and implementation of LRE across the nation (Marx et al, 2014). Through these court rulings tests have been created to determine if a student is being educated in his or her LRE.

The first of these court rulings came in 1982. In *Board of Education v. Rowley*, the United States Supreme Court ruled on the appropriateness of placement and the restrictiveness of placement (Marx et al., 2014). The court determined that in order meet the LRE provision of EHA, equivalent learning opportunities have to be provided to both students with disabilities and general education students and that all services received in special education must have educational benefit (Marx et al., 2014). This guideline for equity and benefit came to be known as the Rowley Test (Howard, 2004). One year later in 1983, this test was challenged in *Roncker v. Walter*. This time the Sixth Circuit Court of Appeals ruled that while the placement may be educationally beneficial, the school system has to show that the same learning could not take place in a less restrictive setting (Marx et al., 2014). The court stated that the benefits of a more

restrictive placement have to significantly overshadow the benefits of the general education setting. Furthermore, *Roncker v. Walter* (1983) took into consideration the impact of the student's participation on other students as well as the cost implications for educating the student with a disability in the general education setting (Howard, 2004). The third consideration of the ruling said that the school must consider if the services provided in a segregated setting could be provide in a general education setting (Alquraini, 2013). This three-part ruling is known as the Roncker Portability Test (Marx et al., 2014). The implications of these decisions are important due to the fact that while they provided guidance on LRE, the final decision for special education services is still left up to the local school district (Marx et al., 2014).

Through these court interpretations of the LRE provision and advances in special education advocacy, the model of education for students with disabilities began to change. By the mid 1980s, it was determined that the model of pull-out instruction in a special education setting created barriers to academic success for students with disabilities based on the fact that available data did not show significant academic growth among students with disabilities (Zigmond, Kloo, & Volonino, 2009). Educators and advocates started pushing the model of mainstreaming, where students with disabilities spend part of their day in the special education setting and part of their day in the general education setting (Idol, 2006). The philosophy of mainstreaming is built on the idea that if a student is not able to learn in a general education classroom, then the student should spend as much non-academic time with general education peers as possible (Howard, 2004).

Along with the development of the mainstreaming philosophy, advocates and parents continued to push for more integration for students with disabilities in the general education school community. In 1989, the Fifth Circuit Court of Appeals ruled in *Daniel R. R. v. State*

Board of Education to give school systems more direction in their implementation of LRE (Howard, 2004). The court created a two-part test for the provision of LRE. First, if supports and services can be provided in a general education setting and provide the student a sufficient education, then the student should be included. The second part of the test determined that if the student is attending a general education school, but being taught in a special classroom, the student should be integrated with general education students to the maximum extent appropriate (Alquraini, 2013). This came to be known as the Daniel Two-Part Test (Howard, 2004).

Individuals with Disabilities Education Act, 1990

It became clear through court rulings and movements in education that the EHA legislation required reauthorization. In 1990, Congress renamed EHA the Individuals with Disabilities Education Act (IDEA) to provide more clarity on FAPE and LRE provisions (Howard, 2004). The intent of IDEA was to expand access to the general education setting and further educational rights of individuals with disabilities. It largely met this goal by increasing access to general education settings and addressed provision of services for students with disabilities (Connor & Ferri, 2007). “IDEA merely presumes inclusion (in a general education setting) unless such placement is inappropriate for that child” (Howard, 2004, p. 176). It included a mandate that the school team and family come together once per year to discuss the student’s Individual Education Plan (IEP) and determine services needed for the student to be successful (Huefner, 2008). “The language of IDEA required that state plans must provide that ‘to the maximum extent appropriate, children with disabilities, including children in public or private institutions or other care facilities, are educated with children who are not disabled’” (Howard, 2004, p. 168).

Further clarification on LRE came from the 1994 Ninth Circuit Court of Appeals ruling in the *Sacramento City Unified School District v. Rachel H* case (as cited in Alquraini, 2013). This court combined the Daniel Two-Part Test and the Roncker Test. The ruling stated that consideration should be given to (a) whether the educational benefits in the general education setting outweigh those of the special education setting, (b) whether there are non-academic benefits to all students, (c) the impact of participation on the student with a disability on the general education setting, and (d) the cost of supplementary aids and services provided (Alquraini, 2013). This court case is significant to the interpretation of LRE because the court sided with the plaintiff in saying that the student could be provided an appropriate education alongside her general education peers regardless of her cognitive disability (Alquraini, 2013).

Individuals with Disabilities Education Act, 1997

Congress reauthorized IDEA in 1997 to rectify some of the shortcomings of IDEA 1990 (Huefner, 2008). According to the existing FAPE provisions progression from grade to grade alongside the student's same age peers appeared to meet the requirements, however it was clear upon further review that this system of promotion was not paired with academic progress of students with disabilities and therefore did not meet the threshold for FAPE (Huefner, 2008). In order to address this lack of academic progress, the 1997 amendments to IDEA included adding measurable, annual goals and benchmarks to the student's IEP, measuring and reporting student progress toward these goals, and student participation in statewide achievement testing (Huefner, 2008).

Also included in IDEA 1997 is a description of LRE:

To the maximum extent appropriate, children with disabilities . . . are educated with children who are not disabled, and special classes, separate schooling, or other removal of

children with disabilities from the regular educational environment occurs only when the nature or severity of the disability of a child is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily. (Alquraini, 2013, p. 153)

The Federal law also mandates that the school has to justify why a student is removed from the general education setting to receive his or her education. IDEA defaults to the general education setting as the LRE and any placement outside the general education setting must be justified (Marx et al., 2014).

No Child Left Behind Act, 2001

Congress reauthorized the Elementary and Secondary Education Act (ESEA) in 2001 with the completion of the No Child Left Behind Act (NCLB; Connor & Ferri, 2007). The intention of NCLB was to improve academic achievement of all students, including those with a disability (Connor & Ferri, 2007). The three main tenets of NCLB are (a) all students have access to the general education curriculum, (b) all students are taught by highly qualified teachers, and (c) all students are included in accountability measures (Cook & Friend, 2010). NCLB opened the door further to considering educational outcomes for students with disabilities in the LRE, moving away from LRE being defined as a place. This meant that students with disabilities

“would be taught the same content as all other students are taught, be held responsible for the same coverage of the general education curriculum without any reduction in breadth or depth, and be expected to master the same academic standards as all other students” (Zigmond et al., 2009, p. 194).

A connection was made between low academic performance of special education students and a lack of expectations in special education settings. NCLB legislation was an attempt to address the issue of low performance and low expectations (Zigmond et al., 2009). This emphasis on participation in and accountability for general education curriculum required teachers and schools to rethink their service model for special education students (Griffin, Kilgore, Winn, & Otis-Wilborn, 2008).

In 2004, Congress again reauthorized the IDEA legislation, this time with the intention of aligning it to NCLB (Huefner, 2008). First, since there is an emphasis on progress in the general education curriculum, all IEPs must now include academic present levels of performance in addition to any other skill areas to be addressed for the student. Second, because all students are required to participate in state mandated testing, IDEA created a provision for alternate assessments that are parallel to the general education state assessments. The third step toward alignment is the inclusion of research-based strategies for addressing attainment of IEP goals and progression in the general education curriculum (Huefner, 2008). While court cases and Federal law continue to provide guidance for the LRE, it remains the role of local public agencies, school systems, to provide educational services as they deem in accordance with current statutes (Alquraini, 2013).

Special education eligibility. In order to determine if a student is eligible to receive special education services, the multi-disciplinary team at the child's school must complete an educational evaluation (Yell & Katsiyannis, 2004). The educational evaluation is used to determine if the student meets eligibility requirements according the guidelines in IDEA. The evaluation includes the student's strengths and needs that result from the disability and determine whether or not the disability negatively affects the student's ability to progress within the

curriculum (Yell & Katsiyannis, 2004). If it is determined that the student does meet criteria as a student with a disability, the school staff and family will come together to create an IEP (Zigmond et al., 2009). The student's special education teacher, general education teacher, and family members are integral members of the case conference committee, along with the public agency representative and any related service providers (Huefner, 2008).

One area of eligibility in special education is autism. The Centers for Disease Control and Prevention (2014) estimated that 1 in 68 eight-year-olds in the United States have been diagnosed with autism. These children present challenges in school due to their difficulties with communication, behavior, and learning. These challenges influence the ways teachers and students interact with students with autism (Robertson, Chamberlain, & Kasari, 2003). With the increase in the incidence of autism in US schools, it is important to examine the extent to which these students participate in their general education classrooms and the effect attitudes and collaboration among their teachers have on their participation.

Although the promise of the LRE is education in a general education classroom, according to the U.S. Department of Education (2015) students with autism on average are being educated in a more restrictive placement when compared with students with disabilities in general. When looking specifically at the least restrictive placement of 80% or more time spent in the general education classroom, 61.1% of all students with disabilities participate in this LRE, contrasted with 39% of students with autism (U.S. Department of Education, 2015). The LRE of separate school also illustrates how students with autism are educated in more restrictive settings, given that only 3% of students with disabilities attend these schools while 7.7% of students with autism are educated in these facilities (U.S. Department of Education, 2015).

Case conference committee. The IEP team, or case conference committee (CCC), uses data to determine the student's strengths and needs as they pertain to his or her school performance. These strengths and needs will guide the IEP goals and determine appropriate programming to help the student progress in the academic curriculum (Yell & Katsiyannis, 2004). The IEP outlines the specialized programming, including instructional strategies, supplemental services, and curriculum the student needs in order to gain meaningful educational benefit from school (Zigmond et al., 2009). It is important to note that this programming and services are determined by individual needs, not disability category (Marx et al., 2014). The CCC then decides in which setting(s) the student's programming can best be provided. The CCC uses the developed IEP to determine the most appropriate placement, which is the specific setting in which the IEP can best be implemented, or the student's LRE (Yell & Katsiyannis, 2004).

Least restrictive environment. In order to comply with advances in legislation, schools are considering the historical context of special education services and adapting to meet the needs of students and legislative guidance. Since instruction provided exclusively in a pullout setting was deemed ineffective for most students with disabilities, general education classrooms have been restructured to meet the needs of diverse learners (Zigmond et al., 2009). Students with disabilities must be educated with typically developing peers to the maximum extent appropriate and can be moved to a special education setting only if they cannot fully benefit from the education being provided in the general education setting (Alquraini, 2013).

Students with disabilities have the right to be educated in the general education setting when the nature of the severity of the disability allows them; however, if this is not an

appropriate setting for the student, another continuum of alternative placement should be considered. (Alquraini, 2013, p. 154)

IDEA requires that school systems provide a full continuum of services to meet the needs of all students (Howard, 2004). This continuum is measured from least restrictive to most restrictive (Obiakor, Mateba, Rotatori, & Algozzine, 2010). Any LRE placement that is outside the general education setting is considered restrictive and must be justified by the school (Marx et al., 2014).

Continuum of Services placement options include “*inclusion*, where students are serviced within the general education environment with their nondisabled peers, from the general education curriculum; *resource* where students are pulled out of the regular education environment and serviced outside of the regular environment, usually in the special education classroom; *self-contained* or most restrictive placement (MRP) where students, with moderate to profound needs, remain in a special education classroom for the majority of their school day, *alternative* placements where students are serviced outside of the general public school, and the institution where services are provided to children in a day or residential treatment center or the like. (Obiakor et al., 2010, p. 144)

Due to the emphasis on the general education setting as the starting point for the LRE, schools are forced to determine how to provide students with disabilities both access to and progression in the general education curriculum (Allday et al., 2013) while still providing specialized services needed to address skill deficits associated with the disability (Zigmond et al., 2009).

education” (Florian, 2008, p. 202). “Inclusion is not simply a service placement, but ‘a way of life, a way of living together, based on a belief that each individual is valued’ and belongs” (Connor & Ferri, 2007, p. 64). It is about accepting our differences (Florian, 2008), creating democratic individuals and services a set of political values (Reindal, 2010). Across many countries, inclusive models of education represent the most equitable way of educating children (Forlin et al., 2011). Through inclusion, all persons are welcomed and valued as participants and members of the school and community (Cook & Friend, 2010).

Similarly to the dilemma of operationally defining FAPE and LRE as they pertain to special education students, inclusive practices are also ambiguous in their nature. There are ideals of inclusion, but the day-to-day implementation varies to the point that inclusion is “virtually meaningless, a catchword used to give a patina of legitimacy to whatever program people are trying to sell or defend” (Connor & Ferri, 2007, p. 64). It is unclear whether inclusion meets the promise of FAPE including all of the specialized services students with disabilities need (Zigmond et al., 2009). “Inclusion has been viewed (by some) as a cost-cutting device, not motivated by humanistic reform, but rather a means to bureaucratic fiscal prudence” (Connor & Ferri, 2007, pp. 72-73).

Beyond apprehensions about defining inclusion and specifically outlining services that can be described as inclusive, there are concerns regarding whether the promise of inclusion goes far enough. There is a full inclusion movement that advocates for the discontinuation of any pullout services for special education students. They advocate for a restructuring of the educational landscape to reshape instructional and educational services (Howard, 2004). However, opponents of full inclusion argue that the general education setting is not always the best for all students and that the specialization that students can receive in a special education

setting is important. The greater intent of IDEA and FAPE should be recognized beyond the push toward inclusion (Howard, 2004). There is the belief that inclusion is an important part of special education, however full inclusion may go too far in that it restricts a student's ability to receive specialized instruction to address his or her learning needs (Zigmond et al., 2009). A full inclusion environment is "essentially devoid of special education . . . providing a restructured and unified system of special and general education" (Kavale & Forness, 2000, p. 283). In order for this to be successful teachers must have the appropriate training to effectively collaborate to meet student needs (Murawski, 2010).

If the overarching purposes of inclusion are access to and progression in general education curriculum (Allday et al., 2013) as well as fostering a level of understanding and acceptance of individual differences among students (Florian, 2008), guiding principles for the implementation of inclusion must be identified and addressed. Obiakor et al. (2010) identified six principles for successful inclusive practices:

- Students receive instruction in general education content by the general education teacher at the student's regularly assigned school.
- Resources are implemented to support the learning of all students and the school itself is organized in a way that supports the learning of all.
- Positive behavior supports are implemented as a way to address social development and citizenship for all students.
- All members of the school community, including parents, administrators, teachers and staff work together to address the learning of all students.
- Schools are responsive to the culture of the community and welcome parent participation in the school's decision-making process.

- Systems change is supported by district level administration in order to foster meaningful and sustainable progress. (pp. 149-150)

With the emphasis on inclusive practices within US schools, it is important to define inclusion beyond the number of minutes students with disabilities spend in general education and special education settings. Creating meaningful participation of students within the general education classroom starts with effective collaboration between the general education teacher and special education teacher.

Collaboration

Effective collaboration between general education and special education teachers requires the development of shared goals that both professionals work toward achieving (Allday et al., 2013; Stanovich, 1996). This leads to a reconceptualization of inclusive practices and roles of both the general education and special education teachers (Idol, 2006). Through collaboration, the general education teacher can depend on others to lend their expertise specifically related to educating the student with a disability as well as the other students in the classroom (Smith & Leonard, 2005; Stanovich, 1996).

Due to a general lack of criteria by which to determine if an activity requires a collaborative process, teachers feel like they do not have time to collaborate because everything is deemed worthy of collaboration (Cook & Friend, 2010; Friend, 2000). There are, in fact, many tasks that do not require collaboration, yet they are made into collaborative exercises (Cook & Friend, 2010). According to Cook and Friend (2010), “collaboration is the style professionals select to employ based on mutual goals; parity; shared responsibility for key decisions; shared accountability for outcomes; shared resources; and the development of trust, respect, and a sense of community” (p. 3). Successful collaboration requires respect among

participants, but not necessarily positive feelings (Friend, 2000). Formal and informal collaboration can be seen as a means to an end through which students with disabilities receive the most effective educational services (Friend, 2000). When collaborative working relationships are healthy, students receive high quality educational services. Studying the impact of this relationship is significant when measuring participation of students with autism in the general education classroom.

Teacher Preparation Programs

One obstacle to inclusion and effective collaboration among general education and special education staff members is the teacher preparation program for each discipline (Hobbs & Westling, 1998). The National Board for Professional Teaching Standards (2001) includes a standard for collaboration stating “accomplished teachers contribute to the effectiveness of the school by working collaboratively with other professionals on instructional policy, curriculum development and staff development” (Smith & Leonard, 2005, p. 269). However, Allday et al. (2013) found that only six percent of universities required a course on collaboration. In general education and special education teacher preparation programs, credit hours dedicated to collaboration between the two groups constituted less than 0.3% of the education coursework (Allday et al., 2013). Teacher preparation programs for general and special education teachers do little to model or integrate collaboration (Robinson & Buly, 2007).

General education and special education teacher preparation programs have been developed separate from one another, providing dual certification programs rather than an integrated teaching certification (Cochran-Smith & Dudley-Marling, 2012). Therefore, when teachers from the two programs work together in a school setting, their understanding of theory and research varies. This leaves them with a “lack of a shared language” and “lack of similar

definitions for shared concepts” (Robinson & Buly, 2007, p. 85). This absence of commonality makes successful collaboration difficult, creating misconceptions and mistrust among teachers (Robinson & Buly, 2007). Candidates in general education and special education preparation programs typically do not participate in similar conversations and learning opportunities as they pertain to education policy and research (Cochran-Smith & Dudley-Marling, 2012). This creates a divide among educators around major issues of curriculum, instruction, and the overall structure of the school environment (Cochran-Smith & Dudley-Marling, 2012).

General education. Historically, general education theory has been rooted in constructivism (Robinson & Buly, 2007). General education teachers work from a social justice perspective, drawing on social sciences for influence (Cochran-Smith & Dudley-Marling, 2012). These “social justice educators work from a sociocultural theory of learning, which holds that learning cannot be reduced to sets of autonomous skills stripped from the sociocultural contexts in which they are used” (Cochran-Smith & Dudley-Marling, 2012, p. 239). They tend to reject deficit thinking, opting instead to address the problems present due to the disability within a cultural context (Cochran-Smith & Dudley-Marling, 2012). General educators think of the structures of schools as barriers to full inclusion and students’ access to the general education curriculum. They consider how to adjust curriculum to be inclusive of all points of view in order to allow all students more access (Cochran-Smith & Dudley-Marling, 2012).

When working in a school setting, general education teachers need to move from being isolated in their respective classrooms to being interdependent connected members of the special education team (Stanovich, 1996). As general educators become more responsible for the instruction and learning of students with disabilities, they should play an active role in the development of the student’s special education plan and services (Stanovich, 1996).

Special education. Theories of special education, on the other hand, were established in the behaviorist theory (Robinson & Buly, 2007). The influence of behavioral psychology and the medical model lend themselves to a focus on skill deficits (Cochran-Smith & Dudley-Marling, 2012). Through this lens, “any behavior can be broken down into a finite set of component skills and subskills that, in turn, are the focus of remediation” (Cochran-Smith & Dudley-Marling, 2012, p. 238). When students fail to progress and learn in the expected ways, special education teachers identify the student’s skill deficits and work to remediate them. This is the basis for identification for special education services. “Diagnosis (in special education) has focused on the identification of disabilities and the specific skill deficits that presumably underlie these conditions” (Cochran-Smith & Dudley-Marling, 2012, p. 239). Diagnosticians use psychometric tools in order to “promise objectivity and precision in determining effective, research-based instructional strategies for ameliorating student deficits” (Cochran-Smith & Dudley-Marling, 2012, p. 239).

It is these deep-seated differences in theoretical frameworks that make collaboration among general education teachers and special education teachers difficult (Cochran-Smith & Dudley-Marling, 2012). It is important to understand these differences in order to best support the development of a positive relationships among general and special education teachers. The relationship between the general education and special education teacher has the potential to directly impact, both positively and negatively, participation of students with autism in the general education classroom and the larger school environment.

School Culture

The concept of school culture was developed based on the principles of organizational culture, a set of values shared by members of an organization (Karadağ, Kılıçoğlu, & Yılmaz,

2014). Thereby, school culture can be defined as the shared values of staff members within any school. Culture among schools varies depending on the factors impacting the staff and community. One such factor is the leadership of the school principal (Lee & Li, 2015). The school principal shapes the school's culture through his or her personality, attitudes, and behaviors, which in turn influence the attitudes and behaviors of teachers and staff (Lee & Li, 2015).

For students with autism, a school culture that values their membership in the learning community is crucial. Students with disabilities realize the benefits of a school culture that promotes collaboration among staff in order to meet the needs of diverse learners (Griffin et al., 2008). When the school culture has embedded collaborative practices the collaboration is more effective and sustainable. Conversely, when collaboration taking place between teachers is not part of the culture it is fragile and often unsustainable (Hubermann, Navo, & Parrish, 2012). Therefore the role of the principal in creating an inclusive, collaborative environment is a critical piece of educating students with autism.

Co-Teaching

One approach to implementing inclusion is co-teaching in teaching partners, usually a general education teacher and special education teacher. Co-teaching is designed to deliver students with disabilities access to the general education curriculum while still providing the specialized instruction of special education services (Friend, Cook, Hurley-Chamberlain, & Shamberger, 2010). There are many teaching models that include the use of more than one teacher to educate students, however these models do not include all of the elements of co-teaching. Murawski (2010) explained co-teaching as co-planning, co-instructing, and co-assessing between two teachers who teach the same general education classroom of students,

including students with disabilities. The ability of these two teachers to work together and effectively collaborate is essential to the success of students in a co-teaching model. Murawski (2010) illustrated this in Figure 3.

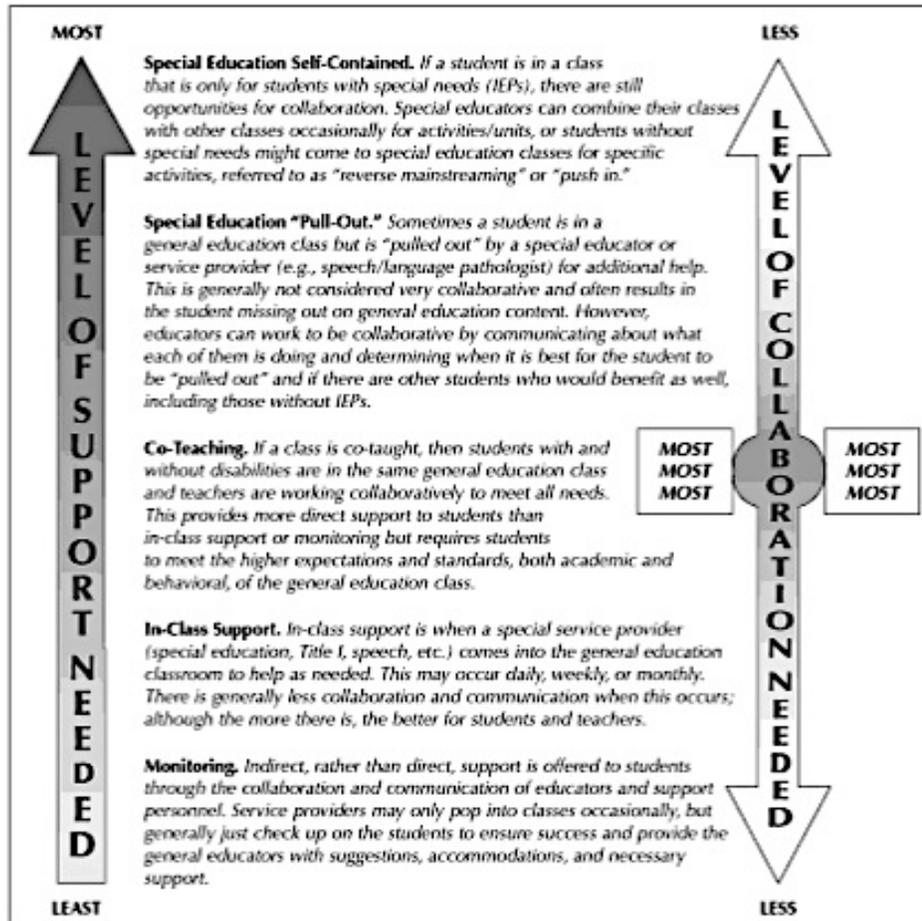


Figure 3. Understanding the differences in support along the collaborative continuum. From *Collaborative teaching in elementary school: Making the co-teaching marriage work!* (p. 23) by W. W. Murawski, 2010, Thousand Oaks, California: Corwin. Reprinted with permission.

Few researchers are evaluating the effectiveness of co-teaching based on educational outcomes for students with disabilities who learn in a co-taught classroom (Friend et al., 2010). Researchers who have looked at student standardized assessment scores in co-taught classrooms found no significant increases in student scores (Friend et al., 2010; Idol, 2006). A lack of

consistent implementation and training for teachers could be contributing to the lack of evidence within student test scores (Murawski, 2010).

Student Participation

Regardless of the extent to which a school is implementing inclusion, it is important to identify how students with disabilities can meaningfully participate in learning opportunities when they are in the general education classroom. In order to evaluate meaningful participation, one has to first understand what is happening for students with disabilities when they are learning in general education classrooms. Researchers have found that generally “although they were treated much like other students, students with disabilities did not receive differentiated instruction or adaptations” (Kavale & Forness, 2000, p. 285). General education classrooms tend to be places where large group instruction is the primary mode of teaching, where conformity is valued over meeting individual students’ needs (Kavale & Forness, 2000, p. 285).

In addition to the inherent large group structure of a general education classroom, students with disabilities suffer when the components of the IEP are not followed (Kavale & Forness, 2000). General education teachers are responsible for implementing the student’s IEP when the special education teacher is not providing instruction. Therefore, the general education teacher requires training on the needs of individual students and the elements of the IEP (Jorgensen & Lambert, 2012).

One approach to ensuring students will receive accommodations that support participation in the general education classroom is the Beyond Access Model. The Beyond Access Model prompts school staff to identify what is happening in the general education classroom; describe participation for non-disabled students; determine if the student with a disability requires an alternative way to participate; describe supports needed; and determine

who is responsible for preparing those supports (Jorgensen & Lambert, 2012). This model provides a framework for planning a student's full participation in the classroom rooted in the concepts of presumed competence, building supports within common routines, and matching as closely as possible those activities already being done by non-disabled students (Jorgensen & Lambert, 2012). The Beyond Access Model allows students with disabilities to be integrated in meaningful ways in learning opportunities, while requiring minimal planning and prepping on the part of the general education teacher. The amount of responsibility of the general education teacher for planning to teach students with disabilities has been shown to directly impact teacher attitudes toward inclusion (Kavale & Forness, 2000).

Concept of Attitude

It is important to understand how attitudes are developed because attitudes can be indicators of future behavior (Glasman & Albarracín, 2006). The stronger one's attitudes are, the more likely they are to predict one's actions (Glasman & Albarracín, 2006). Attitudes toward objects or concepts are formed based on current and previous experiences and provide a framework for decision-making (Hiriyappa, 2008; Shank, 2002). Boone and Kurtz (2002) defined attitude as "a person's enduring favorable or unfavorable cognitive evaluations, emotional feelings, and action tendencies toward some object or data" (pp. 281-282). This definition relates attitude to feelings, thoughts, and actions; these three components being affective, cognitive, and behavior (Boone & Kurtz, 2002; Hiriyappa, 2008; Shank, 2002). The affective component describes feelings or emotions associated with stimuli and has been shown to have the greatest influence on attitude (Boone & Kurtz, 2002; Hiriyappa, 2008; Shank, 2002). The cognitive component is most generally referred to as one's beliefs, which are neither right nor wrong and are specific to individuals (Boone & Kurtz, 2002; Hiriyappa, 2008; Shank, 2002).

One forms beliefs based on the information available, whether those beliefs are positive or negative (Hiriyappa, 2008). The last component, behavior, is explained by one's actions (Boone & Kurtz, 2002; Shank, 2002) and can be shaped by a person's positive or negative beliefs (Hiriyappa, 2008). It is essential to take all three of these components into consideration when trying to understand general education teachers' attitudes toward students with disabilities and specifically toward students with autism.

As with individual teacher attitudes, it can be helpful to understand the collective development of attitude given that teaching is an interpersonal discipline. The components of affect, cognition, and behavior still apply to the collective development of attitude according to a review completed by Thompson and Fine (1999). Through this review, Thompson and Fine (1999) categorized theories of social cognitive development into four broad categories: symbolic representation and situated cognition, socially shared meaning, supraindividual approach, and communication approach. The researchers found that these classes of models maintain that through cognitive, affective, and behavioral experiences, groups and individuals within those groups create collective meaning and attitudes toward objects or concepts (Thompson & Fine, 1999). Identifying and understanding individual attitude development as well as collective attitude development can help us better understand teacher's attitudes toward students with disabilities in the classroom.

General education teachers' beliefs and attitudes ultimately impact how they support students with disabilities in the classroom (Fuchs, 2010). General education teachers' attitudes toward inclusion of students with disabilities are mixed; some have positive attitudes toward inclusion while others have more negative views (de Boer et al., 2011). General education teachers who have experience working in inclusive education have more positive attitudes than

those teachers who have limited experience. Also, a smaller class size correlates with more positive teacher attitudes toward inclusion (de Boer et al., 2011). “Teachers seem to endorse inclusive education in general, but do not like to be involved when it concerns their own teaching practices and vary their opinion according to the type of disability” (de Boer et al., 2011, p. 333).

General education teachers’ attitudes are trending more positively toward inclusion and they have a generally favorable impression of students with disabilities. However, there are generally more negative views of students with disruptive behaviors in inclusion (Idol, 2006). These teachers tend to hold neutral to negative attitudes toward inclusion when considering the inclusion of students with severe cognitive and behavioral disabilities (de Boer et al., 2011). However, there are more favorable attitudes among general education teachers when discussing inclusion of students with more mild to moderate learning disabilities (de Boer et al., 2011). Students with autism exhibit a wide range of cognitive and behavioral skills, including those that teachers report to be the most challenging and therefore the least favorable to have in their classrooms (Park & Chitiyo, 2011).

There is a documented connection between attitudes and actions within psychological research; therefore it is easy to see how teachers’ attitudes towards students with autism can affect their behavior. This has a significant impact on outcomes for individuals as well as programs (Park & Chitiyo, 2011). According to Park and Chitiyo (2011), these outcomes can determine the effectiveness of inclusion policies in schools both in relation to individual students and school-wide inclusion efforts. Studying the impact of teacher attitudes on participation of students with autism is significant when determining if inclusive services really serve the intent of FAPE and students’ LREs.

Researchers have shown that the relationship between the general education teacher and the special education teacher is central for the achievement of students in an inclusive classroom (Stanovich, 1996). When general education teachers have positive feelings toward their students' success, they are more likely to collaborate with and have a positive relationship with the special education teacher (Jones, Youngs, & Frank, 2013). The extent to which general education teachers and special education teachers lack common experiences impacts their ability to collaborate in the school setting and truly understand each other's perspective. This causes both groups to make assumptions about one another and create rifts in the working relationship (Robinson & Buly, 2007). "Children are affected in negative ways when the relationship between general education and special education teachers is unfavorable" (Griffin et al., 2008, p. 151).

Researchers have identified many barriers to positive relationships between these groups of teachers, some of which are perpetuated by teacher training programs; others are symptomatic of the school environment. It is reported that there is tension between general education and special education teachers (Fuchs, 2010). These tensions include a constant power struggle over resources and information. General education teachers believe that the special education teacher has all of the information and makes the programming decisions, yet the general education teacher is the one left with the responsibility of making it all happen (Fuchs, 2010). Perceptions of an unequal distribution of responsibility are also present, leaving both groups to resent one another and the work they do. A lack of shared ownership for student learning creates tensions between general education and special education teachers because they each feel like they are only responsible for pieces of the student's learning and tend to place blame on one another when the student does not make progress (Fuchs, 2010).

Furthermore, strain is put on the relationship between the general education teacher and special education teacher because it is perceived that the assistance general education teachers receive from special education teachers is inadequate (Fuchs, 2010). They would like more support to plan instructional activities, grade assignments, implement accommodations, and work directly with special education students (Fuchs, 2010).

This accumulation of research indicates a need for inquiry in the area of the general education teacher's attitude toward students with autism in order to better understand if attitude relates to collaboration between teachers and participation of students with autism in the general education classroom. This literature review focuses on these three major areas: (a) special education history and case law, (b) inclusion, and (c) concept of attitude. Chapter 3 contains a description of the methodology, data collection process, and statistical analysis used in this study.

CHAPTER 3

METHODOLOGY

This chapter provides an explanation of how the research questions were addressed. Epistemology, theoretical framework, methodology, and methods are interrelated and therefore must be explored in order to design a research study. Postpositivism, or quantitative research, is the theoretical framework on which I built this study. Creswell (2014) stated that quantitative research is used to determine whether relationships between variables can be tested and used to determine cause and effect. In order to complete quantitative research, the researcher must acquire numeric measures that can be used to describe information collected using tools completed by participants (Creswell, 2014). In postpositivist research, “a researcher begins with a theory, collects data that either supports or refutes the theory, and then makes necessary revisions and conducts additional tests” (Creswell, 2014, p. 36). Absolute knowledge is not attainable, however one can employ scientific methods to explore hypotheses in order to attempt to explain a situation (Creswell, 2014).

This research study was a quantitative study that sought to acquire data relevant to the research questions and hypotheses posed. The strategy of inquiry associated with this quantitative study was a survey design intended to generalize findings from a sample to a population (Creswell, 2014). Quantitative designs are best used for data collection efforts that seek to test theories (Creswell, 2014). Creswell (2014) defined a theory as “an interrelated set of

constructs (or variables) formed into propositions, or hypotheses, that specify the relationship among variables (typically in terms of magnitude or direction)” (p. 86).

The purpose of this study was to determine if the attitude of the general education teacher toward students with autism is related to collaboration between the general education teacher and special education teacher, as well as participation of students with autism in the general education classroom. In order to understand the relationship between these variables, participants were asked to respond to survey items (Appendix A) relative to their experiences.

Research Questions

RQ1: Does the attitude of the general education teacher toward students with autism relate to participation of students with autism in the general education classroom?

RQ2: Does the attitude of the general education teacher toward students with autism relate to collaboration between the general education teacher and special education teacher?

Null Hypothesis

H₀1: The attitude of the general education teacher toward students with autism does not relate to participation of students with autism in the general education classroom.

H₀2: The attitude of the general education teacher toward students with autism does not relate to collaboration between the general education teacher and special education teacher.

Alternate Hypothesis

H_a1: The attitude of the general education teacher toward students with autism impacts participation of students with autism in the general education classroom.

H_a2: The attitude of the general education teacher toward students with autism does not impact collaboration between the general education teacher and special education teacher.

Participants

Elementary general education teachers in Indiana who have students with autism in their classroom were the selected practitioners for this study. A single-stage sampling procedure was used to select participants from a list of general education teachers in the state of Indiana. General education teachers in Indiana had the opportunity to opt-in to participate in the study. In order to do this, I obtained a list of e-mail addresses for general education teachers in the state of Indiana from the Indiana Department of Education (IDOE). The e-mail list provided by the IDOE reflected general education teachers from the 2015-2016 school year as well as other elementary teachers (special area teachers, special education teachers) for that same time period.

Method

1. I completed a freedom of information request through the Indiana Department of Education and obtained the e-mail addresses of elementary general education teachers in grades Kindergarten through 6th grade.
2. I used Microsoft Excel to remove the duplicate e-mail addresses from the list.
3. I loaded the survey items and email addresses into the Qualtrics online survey software. The researcher chose to use an electronic survey as the data collection instrument due to the efficiency of obtaining a large sample size and the expediency of data collection and analysis.
4. I distributed an e-mail to potential participants using Qualtrics that included the IRB Letter to Participants (Appendix B), a link to the online survey, information for contacting IRB at Indiana State University as well as contact information for the Principal Investigator and Chair of the Department of Educational Leadership.

5. A follow-up e-mail containing the same information was distributed using Qualtrics one week after the initial e-mail was sent to potential participants.
6. One week after the follow-up e-mail was sent, the survey was closed. Identified participants were allowed a total of two weeks in which to respond to the survey.
7. To verify that the participants were in fact general education teachers who have students with autism in their classroom, two screening questions were included at the beginning of the survey. These questions asked (a) are you a general education teacher and (b) do you have at least one student with autism in your classroom for a portion of the day. If participants answered affirmatively to both of these questions, they were asked to complete the rest of the survey questions.
8. Participants were able to opt out at any point during the survey.
9. Once the survey was closed and the data was collected, I worked to maintain confidentiality of participants' responses by disaggregating the IP addresses and email addresses from responses prior to analyzing the data.

Instrumentation

I created the electronic survey, *Students With Autism and the General Education Classroom*, specifically for this study based on the variables being investigated. The sections of the survey are screener questions, general information, relationship with the special education teacher, and students with autism in my classroom. In order to gather the appropriate information, I chose to use a combination of questions answered using a 5-point Likert-like scale (1 = *strongly disagree*, 2 = *disagree*, 3 = *neutral*, 4 = *agree*, 5 = *strongly agree*), yes/no, multiple choice options, continuous variables, and extended response items. A five-point Likert-like scale

was used because it allows for a neutral response and presents an adequate number of alternatives (Cox, 1980).

Data Analysis

Data were analyzed using SPSS, Version 16. Descriptive statistics, correlation analysis, and theme analysis were completed using the data collected through the online survey. The descriptive statistics reported include mean, standard deviation, and frequency distribution for the items measured with continuous variable data. Survey items 16, 17, 35, 36, 37, and 38 (Appendix A) were reported using descriptive statistics. A Spearman correlation analysis was conducted to understand how the dependent and independent variables relate to one another. These variables were measured with Likert-like ordinal data. Survey item 33 was correlated with items 21, 22, and 23 in order to answer Research Question 1. Survey item 33 was correlated with item 4 in order to answer Research Question 2. The direction and magnitude of the relationship as well as frequency were reported in this analysis.

Validity and Reliability

This study served as a pilot study for the instrument Students With Autism and the General Education Classroom. This instrument was created after a thorough review of the literature included in Chapter 2. The instrument was tested using Cronbach's alpha test of reliability to measure reliability of the items on the survey. I pulled data from two different parts of the survey instrument and conducted the Cronbach's alpha on these sections separately. The first section measured was relationship with special education teacher (items 3-15, Appendix A) and the second was students with autism in my classroom" (items 16-33, Appendix A). Two independent coefficients were gathered from these two sections. Coefficients between .6 and 1.0 were considered to indicate internal consistency of the variables.

Additionally, an exploratory factor analysis was completed to measure the variability within the survey items as well as determine underlying themes. I completed a rotated varimax component matrix to identify the number of factors present in the survey. I then completed a scree plot to narrow the number of factors. I looked for (a) a loading of .500 or higher, (b) cross-loading with a difference of 1.00 or greater, and (c) a minimum of three items per factor in order to identify the most statistically significant survey items and their factors.

Variables

The independent variable in this study was the attitude of the general education toward students with autism. The two dependent variables were collaboration between the general education teacher and special education teacher as well as participation of students with autism in the general education classroom.

Summary

This chapter describes how the research questions were answered and how the survey instrument was tested in this pilot study. This was a quantitative design using the administration of the researcher-created web-based survey to select participants. The descriptive statistics reported include mean, standard deviation, and frequency distribution for the items measured with continuous variable data. A Spearman correlation analysis was conducted to understand how the dependent and independent variables relate to one another. The instrument was tested using Cronbach's alpha test of reliability to measure reliability of the items on the survey. Additionally, an exploratory factor analysis was completed to measure the variability as well as identify themes within the survey items.

CHAPTER 4

DATA FINDINGS AND ANALYSIS

The purpose of this study was to determine if the attitude of the general education teacher toward students with autism is related to collaboration between the general education teacher and special education teacher, as well as participation of students with autism in the general education classroom. In order to understand the relationship between these variables, participants were asked to respond to survey items (Appendix A) relative to their experiences.

This study explored two research questions in order to better understand these variables.

RQ1: Does the attitude of the general education teacher toward students with autism relate to participation of students with autism in the general education classroom?

RQ2: Does the attitude of the general education teacher toward students with autism relate to collaboration between the general education teacher and special education teacher?

Descriptive Data

This survey tool includes a total of 40 items comprised of a combination of questions answered using a 5-point Likert-like scale (1 = *strongly disagree*, 2 = *disagree*, 3 = *neutral*, 4 = *agree*, 5 = *strongly agree*), yes/no, multiple choice options, continuous variables, and extended response items. The survey was sent to 36,394 teachers who were included on the IDOE's 2015-2016 roster of elementary general education teachers (Kindergarten-6th grade). Of the teachers who received the survey, 2,135 completed the survey for a 5.5% completion rate.

As shown in Table 1, participants were screened out after answering Question 1 (“Are you a general education teacher working in an elementary school in Indiana?”) and Question 2 (“Do you have a student with autism who has an IEP in your classroom at least part of the day?”). There were 667 participants who met criteria and were eligible to complete all 38 required questions. Questions 39 and 40 of the survey were optional, open-ended questions and were not included in the participation completion rate. Of those respondents who answered yes to both screener questions (667 participants), 558 respondents completed all required questions.

Table 1

Yes Responses to Research Questions 1 and 2

Survey Question	Yes	Percent
Are you a general education teacher working in an elementary school in Indiana?	1244	62.7
Do you have a student with autism who has an IEP in your classroom at least part of the day?	667	54.1

Additional information was collected through the survey in order to better understand the experiences of the participants in this study (Table 2). The distribution of years of experience teaching was relatively even across each 5-year span (large decline in teachers with 30+ years of experience) with the average years of experience being 15.86 (Table 3). Of these years, the participants averaged 7.38 years of having students with autism in their classrooms as shown in Table 4. These participants also reported that on average they have 24.01 students in their classrooms this year, 1.87 of which have autism. For the students with autism, on average 72.2% of their day is spent with the general education teacher and an average of 27.1% of their day is spent receiving support from the special education teacher.

Table 2

Descriptives: Continuous Variables

Survey Question	N	Mean	SD
How many years have you been teaching?	558	15.86	10.286
How many years have you had students with autism in your classroom?	558	7.38	6.532
How many students are in your classroom this year?	558	24.01	6.436
How many of your current students have autism?	558	1.87	2.090
On average, your student(s) with autism spend what percent of their day with you?	585	72.29	28.580
On average, your student(s) with autism receive support from the special education teacher for what percent of their day?	585	27.07	26.520

Table 3

Number of Years Teaching

Years	Frequency	Valid Percent	Cumulative Percent
<5	90	16.1	16.1
5-9	97	17.4	33.5
10-14	92	16.5	50.0
15-19	78	14.0	64.0
20-24	71	12.7	76.7
25-29	56	10.0	86.7
30-34	50	9.0	95.7
35-40	13	2.3	98.0
40+	11	2.0	100.0

Table 4

Number of Years Teaching Students With Autism

Years	Frequency	Valid Percent	Cumulative Percent
<5	249	44.6	44.6
5-9	146	26.2	70.8
10-14	75	13.4	84.2
15-19	42	7.5	91.8
20-24	29	5.2	97.0
25-29	11	2.0	98.9
30-34	6	1.1	100.0

Cronbach's Alpha Test of Reliability

In addition to answering the two research questions, this study was designed as a pilot for the instrument Students With Autism in the General Education Classroom. This is a researcher-developed tool based on the literature review found in Chapter 2. The Cronbach's alpha test of reliability was conducted as part of the analysis. I was looking for coefficients between .6 and 1.0 which would indicate internal consistency of the variables. As shown in Table 5, I measured consistency within two different parts of the survey, relationship with the special education teacher and students with autism in my classroom. These two sections contain 31 of the 40 survey items, all of which are measured using a 5-point Likert-like scale. The remaining nine items captured demographic information as well as two open-ended questions. The section relationship with the special education teacher has a Cronbach's alpha reliability coefficient that indicates a good internal consistency. The section students with autism in my classroom has a Cronbach's Alpha reliability coefficient that indicates an acceptable internal consistency. Both of these coefficients indicate that this instrument reliably measures the variables.

Table 5

Cronbach's Alpha Test of Reliability

Section of Survey	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N
Relationship with Special Education Teacher	.844	.860	13
Students with Autism in my Classroom	.722	.721	16

Exploratory Factor Analysis

I completed an exploratory factor analysis to further investigate the survey instrument, Students With Autism and the General Education Classroom. This allowed me to understand the variability among the correlated variables and identify themes within the survey. An exploratory factor analysis produces factors that have an eigenvalue greater than or equal to 1. Seven factors were found to have a statistically significant eigenvalue greater than or equal to 1. Table 6 shows the seven factors for which the eigenvalues meet this threshold and the percent of variance attributed to each component.

Table 6

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	Percent of Variance	Cumulative Percent	Total	Percent of Variance	Cumulative Percent
1	7.378	25.440	25.440	7.378	25.440	25.440
2	4.137	14.264	39.705	4.137	14.264	39.705
3	1.911	6.591	46.295	1.911	6.591	46.295
4	1.465	5.050	51.346	1.465	5.050	51.346
5	1.323	4.563	55.909	1.323	4.563	55.909
6	1.212	4.180	60.090	1.212	4.180	60.090
7	1.120	3.861	63.951	1.120	3.861	63.951

Note. Extraction method: Principal component analysis

A scree plot was used to narrow the number of statistically significant factors. When using a scree plot, one can determine the number of statistically significant factors by locating the number of points present on the elbow or downward curve before the line starts to level out. In this case, the scree plot in Figure 4 indicates that there are four statistically significant factors, down from the seven initially identified through the eigenvalues. I then analyzed the rotated varimax component matrix to determine which survey items met the criteria for inclusion in the four factors. These criteria include (a) a loading of .500 or higher, (b) cross-loading with a difference of 1.00 or greater, and (c) a minimum of three items per factor. Table 7 shows the survey items that meet these criteria and were included in the exploratory factor analysis.

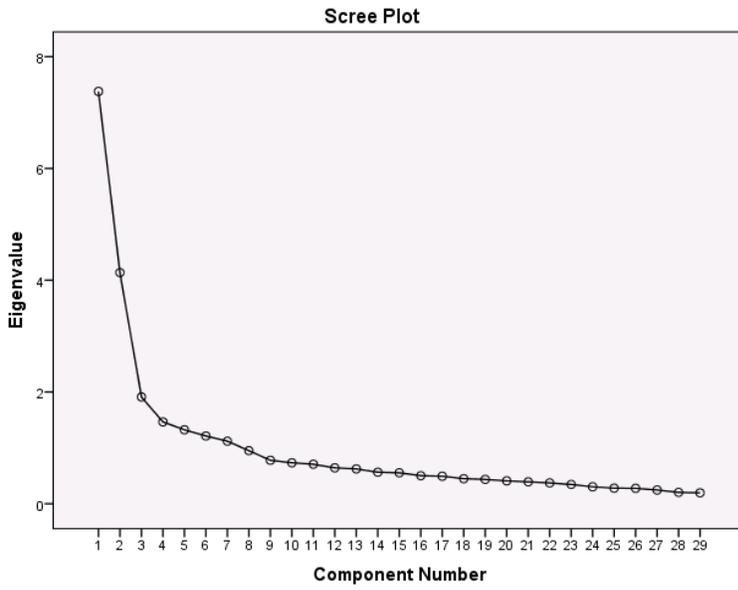


Figure 4. Exploratory factor analysis scree plot.

Table 7

Rotated Varimax Component Matrix^a

Survey Question	Component						
	1	2	3	4	5	6	7
The special education teacher and I have a productive process for airing our differences about programming for students with autism.	.650	.227	.033	.057	.197	.111	.138
I feel a sense of interdependence with the special education teacher.	.653	.144	.039	-.007	.318	.035	.127
The special education teacher is empathetic toward my needs.	.852	.062	-.002	.020	.125	.028	.045
The special education teacher knows me well as a person.	.760	.048	-.001	.055	.101	.078	.101
I have a general feeling of happiness toward the special education teacher.	.879	.015	.019	.097	.101	.026	.098
The special education teacher seems to respect me.	.815	.086	-.013	.091	-.080	.020	.089
I value collaboration time with the special education teacher.	.607	.133	.120	.043	.357	-.147	-.059
The student(s) with autism in my classroom are meeting or exceeding their academic potential.	.054	.188	.391	.099	.054	.544	-.101
The student(s) with autism in my classroom exhibit appropriate social interactions with their peers.	.025	.117	.128	.143	.018	.833	.074
The student(s) with autism in my classroom exhibit appropriate behavior during the school day.	.033	.094	.085	.177	-.047	.839	.084
The student(s) with autism in my classroom complete the same activities in the same ways as non-disabled students in my classroom.	-	.036	.675	.126	.098	.363	.116
The student(s) with autism in my classroom complete the same activities, given accommodations and modifications, as non-disabled students in my classroom.	.086	.153	.578	.171	.074	.316	.098
The student(s) with autism in my classroom have the potential to master the grade-level curriculum of my classroom.	.046	.219	.778	.074	.015	-.040	-.050
I have a sufficient understanding of how autism impacts the learning of the student(s) in my classroom.	.141	.769	.088	.161	-.075	.048	.147
I have a sufficient understanding of how to meet the educational needs of student(s) with autism in my classroom.	.100	.790	.115	.196	-.029	.111	.173
I have had adequate training in strategies needed to teacher student(s) with autism in my classroom.	.070	.718	-.025	.223	-.029	.178	.292
I regularly use the strategies I have learned to support students with autism when preparing lessons and activities in my classroom.	.087	.776	.065	.161	.079	.133	-.011
I seek out help to support students with autism in my classroom if needed.	.210	.583	.172	-.065	.208	-.019	-.092

Note: Extraction method: Principal component analysis

Rotation method: Varimax with Kaiser normalization, Rotation converged on eight iterations.

Bold entries indicate items that met criteria for inclusion in four factors.

I used these loading values to sort the survey items into factor groupings. Once the items were sorted, I searched for commonalities among the survey items to determine the theme for each factor. Table 8 illustrates the four themes of the factors and their corresponding survey items.

Table 8

Exploratory Factor Analysis Themes

Factor 1: Positive Collegial Relationships	Factor 2: Deployment of Professional Development	Factor 3: High Expectations for Students with Autism Mastering Grade-Level Content	Factor 4: Belief in Positive Citizenship of Students with Autism
The special education teacher and I have a productive process for airing our differences about programming for students with autism.	I have a sufficient understanding of how autism impacts the learning of the students in my classroom.	The students with autism in my classroom complete the same activities in the same ways as non-disabled students in my classroom.	The students with autism in my classroom are meeting or exceeding their academic potential.
I feel a sense of interdependence with the special education teacher.	I have a sufficient understanding of how to meet the educational needs of students with autism in my classroom.	The students with autism in my classroom complete the same activities, given accommodations and modifications, as non-disabled students in my classroom.	The students with autism in my classroom exhibit appropriate social interactions with their peers.
The special education teacher is empathetic toward my needs.	I have had adequate training in strategies needed to teach students with autism in my classroom.	The students with autism in my classroom have the potential to master the grade-level curriculum in my classroom.	The students with autism in my classroom exhibit appropriate behavior during the school day.
The special education teacher knows me well as a person.	I regularly use the strategies I have learned to support students with autism when preparing lessons and activities in my classroom.		
I have a general feeling of happiness toward the special education teacher.	I seek out help to support students with autism in my classroom if needed.		
The special education teacher seems to respect me.			
I value collaboration time with the special education teacher.			

Correlation Analysis

In order to answer the questions addressed in this quantitative study, I employed statistical techniques to explore the relationships between the independent variable and dependent variables. Using these methods, I could understand where correlations exist, the direction of the relationship between two or more variables, and the strength or magnitude of the relationship between variables (Creswell, 2014).

When the research questions were developed, I crafted survey items of which the responses would be used to analyze each variable. The independent variable, general education teacher attitudes toward students with autism, was captured through question 33, “If given the opportunity, I would choose to have students with autism in my classroom.” For the purpose of answering the research questions, survey item 33 was used in the primary analysis of the independent variable.

Questions specific to each dependent variable were also created. To address the dependent variable, participation of students with autism in the classroom, three questions were asked to determine the level of participation in general education content. These items are question 21 “The students with autism in my classroom complete the same activities in the same ways as non-disabled students in my classroom,” question 22 “The students with autism in my classroom complete the same activities, given accommodations and modifications, as non-disabled peers in my classroom,” and lastly question 23 “The students with autism in my classroom complete different activities than non-disabled students in my classroom.”

I chose to measure the dependent variable, collaboration between general education and special education teacher, using one survey item, question 4: “Through collaboration, the special education teacher and I experience shared responsibility, resources and accountability for student

learning.” For each of these three variables, the survey tool included subsequent questions that explored these topics, however not all of the items in the survey were used in the quantitative analysis of the data to answer the research questions.

To answer RQ 1, a Spearman correlation was used to determine if a correlation exists between the two variables along with the direction and magnitude of this correlation as shown in Table 9. I found that there is a strong, positive correlation between general education teachers’ attitudes and participation of students completing the same activities in the same ways.

Similarly, there is a strong, positive correlation between general education teachers’ attitudes and participation of students completing the same activities with accommodations and modifications.

Conversely, there was a strong, negative correlation between general education teachers’ attitudes and students completing different activities.

Table 9

Spearman Correlation: Research Question 1

Survey Question	Spearman Correlation	Sig. (2-tailed)	N
The student(s) with autism in my classroom complete the same activities in the same ways as non-disabled students in my classroom.	.268**	.000	559
The student(s) with autism in my classroom complete the same activities, given accommodations and modifications, as non-disabled students in my classroom.	.327**	.000	559
The student(s) with autism in my classroom complete different activities than the non-disabled students in my classroom.	-.129**	.002	559

Note. **Correlation is significant at the 0.01 level (2-tailed).

To answer research question 2, a Spearman correlation was used to determine if a correlation exists between the two variables along with the direction and magnitude of this correlation as shown in Table 10. I found that there is a strong, positive correlation between general education teachers' attitudes and collaboration between the general education teacher and the special education teacher.

Table 10

Spearman Correlation: Research Question 2

Survey Question	Spearman Correlation	Sig. (2-tailed)	N
Through collaboration, the special education teacher and I experience shared responsibility, resources, and accountability for student learning.	.176**	.000	559

Note. **Correlation is significant at the 0.01 level (2-tailed).

Summary

In this study, I identified two research questions that measured one independent variable and two dependent variables. In order to measure the reliability and variability within the survey tool, the researcher use the Cronbach's alpha test of reliability along with completing an exploratory factor analysis to measure variability within the survey items. In order to understand the relationship between the variables I used a Spearman correlation due to the fact that the variables were measured using ordinal data. In addition to answering the research questions, this study served as a pilot study for the survey instrument.

CHAPTER 5

DISCUSSION OF FINDINGS, IMPLICATIONS AND FUTURE RESEARCH

In this chapter, I will discuss the findings of the study based on the correlation analysis of the variables, exploratory factor analysis of the survey items, and theme analysis of the two open-ended questions. Additionally, I will discuss implications of the results as they relate to school personnel and areas for future research.

Purpose

The purpose of this quantitative study was to determine if the attitude of the general education teacher toward students with autism is related to collaboration between the general education teacher and special education teacher, as well as participation of students with autism in the general education classroom. This study utilized a web-based survey to assess Indiana elementary general education teachers' attitudes toward students with autism as they relate to collaboration and participation of students with autism. The independent variable for this study was the attitude of the general education teacher toward students with autism. The two dependent variables in this study were collaboration between the general education teacher and special education teacher and participation of students with autism in the general education classroom.

Research Questions

RQ1: Does the attitude of the general education teacher toward students with autism relate to participation of students with autism in the general education classroom?

RQ2: Does the attitude of the general education teacher toward students with autism relate to collaboration between the general education teacher and special education teacher?

Overview of Study

The survey tool I created, *Students With Autism and the General Education Classroom*, includes a total of 40 items comprising a combination of questions answered using a 5-point Likert-like scale (1 = *strongly disagree*, 2 = *disagree*, 3 = *neutral*, 4 = *agree*, 5 = *strongly agree*), yes/no, multiple choice options, continuous variables, and extended response items. The survey was sent to 36,394 teachers who were included on the Indiana Department of Education's 2015-2016 roster of elementary general education teachers (Kindergarten-6th grade). Of those who received the survey, 2,249 participants started the survey and 2,135 participants completed the survey by either answering only the first screener question *no*, only the second screener question *no*, or all of the first 38 required questions. Of those respondents who answered *yes* to both screener questions (667 participants), 558 respondents completed all required questions. Questions 39 and 40 are open-ended questions. These questions were included in the survey instrument as a way to further understand the variables measured.

This study served as a pilot study for the instrument *Students With Autism and the General Education Classroom*. This instrument was created after a thorough review of the literature included in Chapter 2. The reliability of the instrument was tested using Cronbach's alpha test of reliability to measure reliability of the items on the survey. Additionally, an exploratory factor analysis was completed to measure the variability of items as well as themes

within the survey. The results of this pilot study will inform how the instrument might be used in the future.

Discussion of Findings

Participants

Information was collected through the survey in order to better understand the experiences of the participants in this study. The distribution of years of experience teaching was relatively even across each 5-year span (large decline in teachers with 30+ years of experience) with the average years of experience being 15.86. Of these years, the participants averaged 7.38 years of having students with autism in their classrooms indicating that, on average, teachers have had a student with autism in his or her classroom for half of his or her career. Participants also reported that on average they have 24.01 students in their classrooms during the current school year, 1.87 of which has autism. For the students with autism, on average 72.2% of their day is spent with the general education teacher and an average of 27.1% of their day is spent receiving support from the special education teacher either in the general education classroom or a special education classroom. These results reinforce the concept of inclusion and students with autism learning in the general education classroom with the support of the special education teacher. Since access to and progression in the general education curriculum is a goal of inclusion, it would be interesting to learn what teachers would report students with autism do when they are not in the general education classroom.

Cronbach's Alpha Test of Reliability

In addition to answering the two research questions, this study was designed as a pilot for the instrument Students With Autism and the General Education Classroom. This is a researcher-developed tool based on the literature review found in Chapter 2. The Cronbach's

alpha test for internal consistency was conducted as part of the analysis. I was looking for coefficients between .6 and 1.0 that would indicate internal consistency of the variables. I measured consistency within two different parts of the survey, relationship with the special education teacher and students with autism in my classroom. These two sections contain 31 of the 40 survey items, all of which are measured using a 5-point Likert-like scale. The remaining nine items captured demographic information as well as two open-ended questions. The section relationship with the special education teacher has a Cronbach's alpha reliability coefficient that indicates a good internal consistency. The section students with autism in my classroom has a Cronbach's alpha reliability coefficient that indicates an acceptable internal consistency. Both of these coefficients indicate that this instrument reliably measures the variables.

Exploratory Factor Analysis

I completed an exploratory factor analysis to further investigate the survey instrument, Students With Autism and the General Education Classroom. This allowed me to understand the variability among the correlated variables and identify themes within the survey. I used the loading values to sort the survey items into factor groupings. Once the items were sorted, I searched for commonalities among the survey items to determine the theme for each factor. These four factors are Positive Collegial Relationships, Deployment of Professional Development, High Expectations for Students With Autism Mastering Grade-Level Content, and Belief in Positive Citizenship of Students With Autism.

The factors relating to professional development and relationships reflect variables identified within the literature review. The factors relating to high expectations and positive citizenship were not identified as variables through the literature review. These are two areas that could be explored through future research using this survey instrument.

Correlation Analysis

To answer RQs 1 and 2, I used a Spearman correlation to determine if a relationship exists between the independent and dependent variables. I found that there is a strong, positive correlation between general education teachers' attitudes and participation of students completing the same activities in the same ways. Similarly, there is a strong, positive correlation between general education teachers' attitudes and participation of students completing the same activities with accommodations and modifications. Conversely, there was a strong, negative correlation between general education teachers' attitudes and students completing different activities. I found that there is a strong, positive correlation between general education teachers' attitudes and collaboration between the general education teacher and the special education teacher.

The strong, positive correlations between teacher attitudes and student participation in grade-level activities indicates that teachers who have positive attitudes toward their students with autism are more likely to provide them with the same activities as their peers and provide accommodations to these students in order to support their mastery of content. This is a reflection of high expectations on the part of the teacher for their students to master grade-level content. To contrast, teachers with negative attitudes toward their students with autism tend to provide their students entirely different activities from what the classroom is doing. These teachers' actions reflect that they do not believe their students can master grade-level content. When students with autism are completing different activities, they may be sharing space in the general education classroom but are not being exposed to or working on grade-level content. Sharing space in a classroom does not meet the criteria for an inclusive experience for students with disabilities. This is why the general education teacher's attitude toward students and the

strong, positive collaboration with the special education is so important. The general education teacher needs the special education teacher to help them provide their students with access to the grade-level curriculum and support their participation in that content in a meaningful way. The negative attitude of teachers stifles opportunities for students with autism to learn grade-level content alongside their peers.

Theme Analysis

Two open-ended questions were included in the survey as a way to further explore the ideas of participants and variables measured. These two questions investigate the concepts of preparation and support from administration. I chose not to focus on either of these as a variable for the study; however, based on the literature review I believe that by adding these as open-ended items one can gain more insight into the measured variables. The two questions included are “How do you feel prepared to work with students with autism?” and “How do you feel supported by the administration to work with students with autism?”

For the first question of preparedness, teachers generally expressed the full spectrum of readiness from “not at all” to “fully prepared.” Their reported level of preparation was due to a variety of factors including training, experience, and community supports. Based on the literature review these factors are not surprising; however, their impact on one another interestingly affects a teacher’s report of feeling prepared to teach students with autism.

Participants who reported feeling prepared to teach students with autism shared that they had some sort of training to teach students with autism. This came in the form of a college degree in special education as well as various formal and informal learning opportunities. Of teachers who reportedly feel prepared, most reported that they pursued learning opportunities through journals, books, websites, or on-site trainings. These were sought out when teachers

were feeling unsure of how to work with a student. The teachers who reported that they were not prepared to work with students with autism stated that they were not provided the training they needed by their school or district. In analyzing the responses from prepared and unprepared teachers, the main difference was found in their ambition to find solutions to their problems. Those teachers who used self-directed study reported that they are prepared, while teachers who relied on their school and district to provide training reported that they do not feel prepared.

Another factor affecting teachers' preparedness for teaching students with autism came from their experiences, both in and outside the classroom. The majority of teachers reported that the more experience they had working with students with autism the more prepared they felt they were. However, they also shared that every student with autism is unique and has to be approached and taught as an individual. What works for one student with autism might not work for another. Teachers who reported that they are not prepared found the concept of uniqueness to be a barrier, while teachers who reported that they are prepared approached the concept of uniqueness as a puzzle to be solved. Teachers shared that problem solving to figure out what works for students has proven to be the best experience to learn from.

Additionally, many teachers who feel prepared reported that they have learned a lot through their experiences with various family members who have autism. Their experiences at home working with their own family has provided them insight into how unique individuals with autism are. In the review of literature, the impact of having family members with autism was not explored.

For many teachers, the concept of community extends beyond the school building and highlights the relationship between teachers and families. Teachers who reported feeling prepared stated that they see their students' families as partners and frequently problem solve and

share strategies with parents. Teachers also mentioned that strong relationships with the special education staff and other teachers positively impacted their preparation to work with their students with autism. Teachers who reported that they are not prepared did not indicate that they have community of support within their school building or with the students' parents. In fact, many unprepared teachers stated that they did not have support within their school to teach their students with autism.

In response to the question of administration support, teachers shared that there are administrators who are supportive while others seem to work against them. There were two types of supportive administrators. One group of teachers described their administrators as proactive, checking in with them regularly to see how they and the students are doing. The administrators know all of the students by name and believe that students with disabilities should be in inclusive environments with all of the supports they need. Another group reported that they are supported, however their administrators tend to go along with whatever they as the classroom teacher want to do. Administration is not providing direction, but they are not hindering their work either. These teachers reported that they have to seek out resources but that when they ask they feel that their administrators do what they can to get them the resources they need.

On the other hand, there are teachers who feel that their administration is not supportive. One group of teachers report that they also have to ask for resources, but that they are most often told that there is not any money to provide materials or training for working with their students with autism. They also shared that their administration do not have the skills needed to support the students so they tend to look the other way and expect teachers to handle whatever is happening in their classrooms. Another group of teachers who do not feel supported report that

they feel like administration are working against them. Their administrators do not support their decisions and side with the parents. They report that they feel like they do not have a say in how things are handled with their students.

By including these two open-ended questions I was hoping to gain insight into the measured variables general education teacher attitudes, participation of students, and collaboration with special education teacher. Teachers who reported to be prepared to teach students with autism shared that they seek out learning opportunities, have experience working with students with autism, and have support within their community including that of administration. These insights reflect the literature review and are compatible with the findings that positive attitudes have a positive relationship with collaboration and student participation, whereas teachers who believe they are unprepared look to others for training, see student differences as barriers, and reportedly have little support from their community and administration. This is consistent with negative attitudes having a negative correlation to collaboration and student participation.

Implications

The emphasis on teaching students in the general education setting requires school personnel to reimagine the delivery of service to students with disabilities. General education teachers are left on their own for most of the day to teach their students, including those with disabilities (Miller et al, 2000). Therefore, schools rely heavily on collaboration between general education and special education teachers in order to meet the needs of all students (Idol, 2006); however, the outcomes of this collaboration are not always positive. The extent to which general education and special education teachers lack common experiences affects their ability to collaborate in the school setting and truly understand each other's perspectives. This causes both

groups to make assumptions about one another and creates rifts in the working relationship (Robinson & Buly, 2007). Effective collaboration requires “joint planning, decision making and problem solving directed toward a common goal” (Stanovich, 1996, p. 40).

Attitudes of teachers are also essential to the delivery of effective educational services for students with disabilities (Allday et al, 2013; Friend, 2000; Idol, 2006; Stanovich, 1996). Teacher’s attitudes are critical because in many instances general education teachers are providing the majority of instruction to students with disabilities (Park & Chitiyo, 2011). Due to the substantial increase in identification of students with autism learning in the general education setting, it is important to explore how general education teachers’ attitudes toward students with autism influence the participation of these students in the general education classroom as well as collaboration between general education teachers and special education teachers.

Research on attitudes, collaboration, and participation as they relate to students with autism is critical due to the undesirable outcomes individuals with autism are currently facing in the educational setting. The measures we use to evaluate student success include scores on standardized tests, graduation rates, and employment after high school. Unfortunately, these measures have shown little to no significant increase for students with disabilities since the emphasis has recently been placed on inclusive education (Lipsky, 2005). Educators must figure out how to make the most of inclusion for students with autism and turn the tide of negative outcomes for these individuals.

When considering the impact of this study on the field of education, administrators can use the findings to improve their support of teachers of students with autism and in turn create a positive, inclusive educational experience for these students. Each year school administrators are faced with the challenge of assigning teachers to grade levels and subsequently, students to these

teachers' classrooms. There are many models to help with the process of assigning students, whether it is clustering of students with similar learning profiles or even distribution of learning profiles across classrooms. These models have their supporters and detractors; therefore, allocation of students into classrooms falls most often to the building-level administration.

In studying the impact of general education teachers' attitudes toward students with autism, it is clear that the decision of matching students with teachers is very important. If a student with autism is placed in the classroom of a teacher who has a negative attitude toward him or her, it is likely that the student will not be expected to master grade-level content. This teacher is also less likely to view the student as having positive citizenship qualities in the classroom, promoting exclusion from more than just high academic standards. A teacher with a negative attitude toward the student is also less likely to have a positive, collaborative relationship with the special education teacher making inclusive academic and social opportunities less likely for the student with autism. Many administrators believe that all teachers should take their turn to teach students with disabilities, however this decision needs to be considered carefully when dealing with a teacher with a negative attitude toward the student. It is my recommendation based on the findings of this study that administrators pair students with autism with teachers who have a positive attitude toward having that student in his or her classroom.

Another consideration when administrators are determining student and staff assignments is the importance of a positive collegial relationship between the general education and special education teachers. This study shows that beyond the impact of attitude on collaboration, a positive personal relationship between teachers has a positive impact on their perception of administrative support. General education teachers who reported to work with a special

education teacher who trusts them, is empathetic toward them, and respects them are more likely to report that they are supported by their administration. Based on the findings of this study, collegial relationships are important to the overall well-being of staff and should be considered as building-level administrators are assigning staff to work together for the school year.

In addition to staff and student assignments, administrators also have to plan for professional development for their teachers. Between district and building-based initiatives, administrators are charged with educating their staff members in order to increase positive outcomes for all students. What is the best way to structure this learning? Through this study I found that teachers who reportedly were unprepared, relied heavily on their building and district to provide them professional development. As a building leader, it is practically impossible to meet the learning needs of every single staff member. Therefore, when professional learning is presented as something that has to come from the leadership, I wonder if we are creating teachers who are less likely to seek out their own learning opportunities and thereby feel more unprepared. When teachers are not seeking out learning on their own, they report that they are not prepared to teach students with autism in their classrooms. When administrators are planning for professional learning in their buildings, I would recommend that they use a combination of self-directed learning aimed at solving a problem that each individual teacher and/or grade level are facing. This way, at least part of each teacher's learning is dependent on him or her identifying a problem and working to solve it through self-directed learning. Based on the findings of this study, this is a good way to help teachers feel more prepared to meet the needs of their students with autism.

Administrators will also need to fill their toolboxes with knowledge of how to work with and educate students with autism. Teachers who reported that their administrators were actively

engaged with them and had strategies and ideas to offer as they shared the struggles of their students were more likely to report that they had a high level of support from their administration. Teachers whose administrators did not know how to work with students reported that not only were their administrators unsupportive, they felt like at times they were working against them. A lack of knowledge paired with the intention of helping can lead to negative outcomes for both the teacher and student involved. I recommend that administrators learn alongside their teachers to build their toolbox of strategies for working with and teaching students with autism in the general education classroom.

This study adds to the literature in the area of attitude and how it impacts collaboration and participation of students with autism. Teachers with a positive attitude have more positive outcomes for their students with autism as well as collaborative relationships with their colleagues. These implications are important when considering classroom assignments, staff partnerships, and professional learning opportunities for both the teachers and administrators.

Future Research

I recognize that there is a variety of angles from which the concepts of attitude, collaboration, and participation can be studied. From the results of the reliability and validity tests, the instrument Students With Autism and the General Education Classroom could be used to understand the relationship between variables in future studies. Depending on the variables one intends to measure, the results from the exploratory factor analysis could be used to shorten the electronic survey items. The results of future studies using this survey instrument will be very interesting.

One variable that this survey instrument does not measure is the influence of autism on the students. The autism spectrum is vast, and as such, impacts the social, academic, and

behavior needs of students differently. For this study, participants were asked to answer based on the student they currently have in their classroom. An interesting area to explore is the extent to which autism affects the student's social, academic, and behavior needs in the classroom. In the literature review, it is noted that teachers of students who are severely impacted have less favorable attitudes toward their students than those teachers of students are less impacted by autism. Might there be an opportunity for future researchers to explore the impact of autism as an independent variable and attitude of the general education teacher as a dependent variable.

In my own work as an instructional coach and behavior consultant I am most interested in the future study of how attitudes impact teacher actions. Through the exploratory factor analysis and theme analysis it is evident that some teachers' positive attitudes inspire them to seek out learning opportunities on their own and have a positive vision for their students with autism in the classroom. An area for future research would be to better understand the differences between those teachers who are self-directed learners and view challenges as learning opportunities and those who rely on their school to provide them what they needs and view challenges as something they are not able to overcome on their own. This understanding could impact the way administrators screen potential employees in the interview process as well as inform structures for teacher preparation programs. If teachers are moldable and are able to move from reliant to self-directed this could positively impact our school environments and inclusive experiences of students with disabilities.

There is an entire body of research that explores the relationship between teacher training and student outcomes, as well as teacher behavior and student outcomes. It is my belief that further research needs to be conducted on how teacher attitude impacts student outcomes. There are teachers I work with who have more than adequate training in strategies to teach students

with autism and exhibit behaviors that should result in positive outcomes for their students. However, when you go below the surface and have a conversation with them, you realize that their attitude toward the student with autism in their classroom is negative. They question whether their classroom is the right placement for the student, especially when they feel like their hard work is not paying off. It is at this point when I question whether more training and feedback will make a difference for this teacher and the student or if their attitude is the most important factor in both the teacher and student's success.

As a researcher and practitioner, I will continue to study the relationship between the three components of being: affective (attitude), cognitive, and behavior with an emphasis on how the affective component impacts the other two. If we focus only on the cognitive and behavior pieces, while they are easier to quantitatively measure, we will continue to question why students are not getting the high quality inclusive instruction they deserve from their teachers.

Summary

With the increased emphasis on inclusion of students with disabilities in the general education classroom, more than ever general education teachers are being charged with the education of all students. This shift in student needs requires a shift in the general education teacher's attitude toward students who present unique academic, behavioral and social challenges. These students rely on their teachers to be inquisitive and open-minded toward strategies that help them learn and grow. The impact the general education teacher's attitude has on his or her ability to collaborate with the special education teacher and implement a variety of strategies to teach this impacts participation of students in the general education classroom. Students with autism deserve opportunities to excel in the general education classroom and having a teacher with a positive attitude toward him or her can make that happen.

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APPENDIX A

STUDENTS WITH AUTISM AND THE GENERAL EDUCATION CLASSROOM

Page 1: Screener Questions

- Are you a general education classroom teacher working in an elementary school in Indiana?
 - Yes
 - No
- Do you have a student with autism who has an IEP in your classroom at least part of the day?
 - Yes
 - No

Page 2: Relationship with the Special Education Teacher

- Collaboration with the special education teacher is meaningful to me.
 - 1-Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree, 5-Strongly Agree
- Through collaboration, the special education teacher and I experience shared responsibility, resources and accountability for student learning.
 - 1-Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree, 5-Strongly Agree
- The distribution of responsibility for programming for my student(s) with autism is equal between the special education teacher and myself.
 - 1-Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree, 5-Strongly Agree
- I have a higher degree of responsibility for programming for my student(s) with autism than the special education teacher.
 - 1-Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree, 5-Strongly Agree
- The special education teacher and I have a productive process for airing our differences about programming for students with autism.
 - 1-Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree, 5-Strongly Agree
- I feel a sense of interdependence with the special education teacher.
 - 1-Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree, 5-Strongly Agree
- The special education teacher is empathetic toward my needs.
 - 1-Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree, 5-Strongly Agree
- The special education teacher knows me well as a person.
 - 1-Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree, 5-Strongly Agree
- I have a general feeling of happiness toward the special education teacher.
 - 1-Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree, 5-Strongly Agree
- The special education teacher seems to respect me.
 - 1-Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree, 5-Strongly Agree

- My school provides professional learning opportunities to help me develop collaboration skills with other teachers.
 - 1-Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree, 5-Strongly Agree
- My school has structured opportunities embedded into the workweek to support collaboration between the special education teacher and myself.
 - 1-Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree, 5-Strongly Agree
- I value collaboration time with the special education teacher.
 - 1-Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree, 5-Strongly Agree

Page 3: Students with Autism in my Classroom

- On average, your student(s) with autism spend what percent of their day with you?
 - Continuous variable
- On average, your student(s) with autism receive support from the special education teacher for what percent of their day?
 - Continuous variable
- The students with autism in my classroom are meeting or exceeding their academic potential.
 - 1-Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree, 5-Strongly Agree
- The students with autism in my classroom exhibit appropriate social interactions with their peers.
 - 1-Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree, 5-Strongly Agree
- The students with autism in my classroom exhibit appropriate behavior during the school day.
 - 1-Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree, 5-Strongly Agree
- The students with autism in my classroom complete the same activities in the same ways as non-disabled students in my classroom.
 - 1-Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree, 5-Strongly Agree
- The students with autism in my classroom complete the same activities, given accommodations and modifications, as non-disabled students in my classroom.
 - 1-Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree, 5-Strongly Agree
- The students with autism in my classroom complete different activities than non-disabled students in my classroom.
 - 1-Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree, 5-Strongly Agree
- The students with autism in my classroom have the potential to master the grade-level curriculum of my classroom.
 - 1-Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree, 5-Strongly Agree
- I have a sufficient understanding of how autism impacts the learning of the students in my classroom.
 - 1-Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree, 5-Strongly Agree
- I have a sufficient understanding of how to meet the educational needs of students with autism in my classroom.
 - 1-Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree, 5-Strongly Agree
- I have had adequate training in strategies needed to teach students with autism in my classroom.
 - 1-Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree, 5-Strongly Agree

- I regularly use the strategies I have learned to support students with autism when preparing lessons and activities in my classroom.
 - 1-Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree, 5-Strongly Agree
- I seek out help to support students with autism in my classroom if needed.
 - 1-Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree, 5-Strongly Agree
- Students with autism should be taught primarily in general education classrooms like mine.
 - 1-Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree, 5-Strongly Agree
- Students with autism best learn using specialized techniques available only in a special education classroom.
 - 1-Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree, 5-Strongly Agree
- When a student with autism is disruptive in the general education classroom, it is difficult for the other students to learn.
 - 1-Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree, 5-Strongly Agree
- If given the opportunity, I would choose to have students with autism in my classroom.
 - 1-Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree, 5-Strongly Agree

Page 4: General Information

- What is your gender?
 - Male
 - Female
 - Other
- How many years have you been teaching?
 - Continuous variable
- How many years have you had students with autism in your classroom?
 - Continuous variable
- How many students are in your class?
 - Continuous variable
- How many of your current students have autism?
 - Continuous variable

Open Ended:

- How do you feel prepared to work with students with autism?
- How do you feel supported by the administration to work with students with autism?

APPENDIX B

IRB LETTER TO PARTICIPANTS

You are being asked to participate in a research study as part of a dissertation project at Indiana State University. This study seeks to explore whether attitudes of general education teachers relate to collaboration between the general education teacher and participation of students with autism spectrum disorder (autism) in the general education classroom.

You can choose to participate in this study by clicking on the survey link below. The first two questions are intended to screen participants for elementary general education teachers who have at least one student with autism in his/her classroom for at least part of the day. You may exit the survey at any time and your responses will not be used during the data analysis. This survey will take you about 7 minutes to complete.

The researcher will compile all of the responses and complete a statistical analysis to determine the extent to which relationships relate to collaboration and student participation. The researcher will work to maintain confidentiality by disaggregating IP addresses from responses prior to conducting the data analysis. The perceived impact on participants is minimal.

If you have questions about your rights as a participant in this research, or if you feel you've been placed at risk, you can contact the Institutional Review Board at Indiana State University at (812) 237-8217 or irb@indstate.edu.

Participation in this study is voluntary. Refusal to participate will involve no penalty or loss of benefit to which you may be otherwise entitled. You may discontinue at any time without penalty.

APPENDIX C

WRITTEN PERMISSION FOR USE OF FIGURE

April 24, 2016

Dr. Murawski,

I am a special education teacher working on my dissertation in the Indiana State University Educational Leadership program. The topic of my research is how attitudes of general education teachers relate to the level of collaboration between general and special education teachers.

Your book, *Collaborative Teaching in Elementary Schools: Making the Co-Teaching Marriage Work!*, has influenced my practice as well as my research.

I really like Figure 2.1 Understanding the Differences in Support Along the Collaborative Continuum for how it illustrates collaboration between teachers as it relates to service models of special education.

I am writing to see if you mind me including this Figure in my dissertation as part of my literature review. I would properly cite sources of course.

I believe that this Figure clearly illustrates what I'm trying to capture.

Sincerely,
Sarah Wareham

April 24, 2016

Sarah,

So glad to hear it! and most certainly, you have my permission. Thanks for asking. Good luck with your dissertation! :)

Wendy