TEACHER ATTITUDES TOWARD TEACHING SPECIAL EDUCATION STUDENTS IN THEIR K-2 CLASSROOMS IN AN URBAN SETTING

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ABSTRACT

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The purpose of this study was to examine the attitudes of general education and special education teachers of kindergarten to second grade toward students with disabilities within their classes in 35 elementary schools in one New York City public school district.

The instrument used was the Attitudes Towards Teaching All Students (ATTAS-mm) survey, which incorporated questions on teachers’ attitudes toward students with disabilities as well as the number of years of teaching experience, special education experience, and the amount of participation in special education coursework to determine influence on teacher attitude.

The data were analyzed using one-way and two-way ANOVAs to determine the differences of attitudes of the teachers toward students with special needs in their classrooms, and whether teaching experience, special education experience, and/or the amount of professional development had a positive impact on the attitude of the teachers.

The results of this study revealed differences in general education and special education teacher attitude toward students with disabilities. In the Affective domain and the Behavioral domain, correlations were statistically significant. The analysis also revealed the unexpected finding that relationships in the Cognitive dimension were not significant.
Results of this study can be used in teacher preparation programs for early childhood teachers and in professional learning opportunities for schools and school districts. Specifically, teachers must be prepared to teach students with special needs. According to Avalos (2011), professional learning for teachers is strongly recommended. Schools can facilitate the process, which is strengthened through experiences such as courses and educational learning opportunities.

This study demonstrated the number of special education courses, and special education experience had a positive relationship to the attitudes of teachers. The negative, but statistically significant relationship between teaching experience and attitude demonstrated the need for hands-on teaching experiences. College teacher education programs should include additional courses that contain strategies to teach students with special needs and also include student teaching in special education settings for all teachers, not just special education teachers.
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# TABLE OF CONTENTS

Acknowledgements........................................................................................................... ii  
List of Tables ......................................................................................................................... iv  
List of Figures ......................................................................................................................... vi  
Chapter 1: Introduction ......................................................................................................... 1  
  Purpose of the Study .............................................................................................................. 1  
  Rationale/Significance ........................................................................................................... 5  
  Historical Perspective of Special Education ........................................................................ 7  
  Inclusion/Mainstreaming ....................................................................................................... 10  
  Teacher Perception/Attitude ................................................................................................. 12  
  Relevant Theoretical Framework ........................................................................................... 13  
    The Relationship Between Attitude and Action ................................................................. 13  
    The Relationship Between Attitude and Self-Efficacy ...................................................... 15  
    The Relationship Between Action and Social Context ..................................................... 17  
  Relevant Background Literature ........................................................................................ 18  
  Research Questions ............................................................................................................ 20  
  Hypotheses .......................................................................................................................... 20  
  Definition of Terms ............................................................................................................. 20  
  Limitations ........................................................................................................................... 23  
Chapter 2: Literature Review ................................................................................................. 25  
  The Relationship Between Attitudes and Actions in the Classroom .................................. 26  
  The Relationship Between Teacher Education and Attitudes ............................................. 30  
  The Relationship Between Teacher Self-Efficacy and Attitudes ....................................... 35  
Chapter 3: Method .................................................................................................................. 40  
  Specific Research Questions ................................................................................................. 40  
  Hypotheses ........................................................................................................................... 40  
  Research Design and Data Analysis .................................................................................... 41  
  Target Population ................................................................................................................. 42  
  Instrument ............................................................................................................................. 45  
  Reliability and Validity of Instrument ................................................................................ 46  
  Process for the Study ........................................................................................................... 49  
Chapter 4: Results .................................................................................................................. 51  
  Results for Research Question 1 ......................................................................................... 51  
  Results for Research Question 2 ......................................................................................... 56  
  Results for Research Question 3 ......................................................................................... 57  
  Conclusion ............................................................................................................................. 57  
Chapter 5: Discussion ........................................................................................................... 66  
  Interpretation of Results ...................................................................................................... 67  
  Relationship Between Results and Prior Research ............................................................ 69  
  Limitations ............................................................................................................................ 72  
  Implications for Future Practice and Research ................................................................... 74  
Appendix A: Institutional Review Board Approvals ............................................................... 77  
Appendix B: Data Collection Instruments ............................................................................ 81  
References ............................................................................................................................. 85
**LIST OF TABLES**

Table 3.1 Teacher Type, Gender, Highest Education Level, and Teaching Experience as a Percentage of Sample ................................................. 44

Table 3.2 Initial Factor Analysis, Rotated Component Matrix .................. 48

Table 3.3 Reliability Analysis for ATTAS-mm Full Scale and Subscales ....... 49

Table 4.1 Means and Standard Deviations of the Measure of SUM-Cognitive by Teacher Role ................................................................. 52

Table 4.2 One-Way Analysis of SUM-Cognitive by Teacher Role ............... 52

Table 4.3 Means and Standard Deviations of the Measure of SUM-Affective by Teacher Role ................................................................. 53

Table 4.4 One-Way Analysis of SUM-Affective by Teacher Role ................. 53

Table 4.5 Means and Standard Deviations of the Measure of SUM-Behavioral by Teacher Role ................................................................. 54

Table 4.6: One-Way Analysis of SUM-Behavioral by Teacher Role .......... 54

Table 4.7 Means and Standard Deviations of the Measure of SUM-Total by Teacher Role ................................................................. 55

Table 4.8 One-Way Analysis of SUM-Total by Teacher Role ..................... 56

Table 4.9 Results for the t-test for Equality of Means ................................ 56

Table 4.10 Correlation Between SE Experience and Dimensions ............... 57

Table 4.11 Correlation Between Degree and Dimensions .......................... 58

Table 4.12 Correlation Between SE Courses and Dimensions ..................... 58

Table 4.13 Correlation Between SE Experience and Dimensions ............... 59

Table 4.14 Correlation Between Years of Experience and Dimensions .......... 59

Table 4.15 Linear Regression Coefficients for SUM-Cognitive by Predictor ... 60

Table 4.16 Linear Regression Coefficients for SUM-Affective by Predictor .... 61

Table 4.17 Linear Regression Coefficients for SUM-Behavioral by Predictor .... 63
Table 4.18 Linear Regression Coefficients for SUM-Total by Predictor

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>...</td>
<td>...</td>
</tr>
</tbody>
</table>

64
LIST OF FIGURES

Figure 4.1 Means Plot SUM-Cognitive by Teacher Role ........................................ 52
Figure 4.2 Means Plot SUM-Affective by Teacher Role ................................. 53
Figure 4.3 Means Plot SUM-Behavioral by Teacher Role ............................. 55
CHAPTER 1

Introduction

The National Board for Professional Teaching Standards (NBPTS) and the Council for Exceptional Children (CEC) have developed standards for what accomplished teachers should know and be able to do to have a positive impact on students. The first key standard is at the core of teaching: accomplished teachers base their practice on the fundamental belief that all students can learn and meet high expectations. They treat students equitably, recognizing the individual differences that distinguish one student from another and taking account of these differences in their practice. One of the most important factors that positively impacts student learning is teacher attitude. In Cook’s 2001 study, attitude was found to influence teacher-student interactions. Cook (2001), Cook, Cameron, and Tankersley (2007), and Kruglanski et al. (2015) found that teachers positively interacted with general education students and interacted more negatively with students with disabilities. Building on this research and the self-efficacy research from Bandura (1977) and Khan, Fleva, and Qazi (2015), this quantitative research study examined the relationship between early childhood teacher attitude and behavior toward students with disabilities in their classrooms, and the factors that increase self-efficacy in teachers and their positive impact on students.

Purpose of the Study

The purpose of this study was to examine general education and special education teacher’ attitudes toward students with disabilities in their K-2 classrooms, by focusing on the following questions:
1. What are the differences between K-2 general education and special education teachers in their cognitive, affective, and behavioral attitudes toward educating students with disabilities?

2. To what extent does the number of years teaching in an inclusive environment affect teacher attitudes toward students with disabilities?

3. What factors positively or negatively influence the attitude of the general education teacher and the special education teacher?

The inclusion of students with disabilities in the general education environment has continued to rise since the enactment of Public Law 94-142 in 1977. Likewise, the controversial nature of inclusion and implications for educational opportunities for students with disabilities has also risen (Koh & Shin, 2017). Proponents of inclusion believe that general education settings were the most effective settings in which to provide “appropriate education” to students both with and without disabilities. Opponents of inclusion, however, have stated that almost 90% of the students with disabilities were identified as needing additional special education services after being in the general education classrooms.

The general education teacher is most directly responsible for the effectiveness of the included students and therefore has to be receptive to the philosophy of inclusion or mainstreaming (Cook, Tankersley, Cook, & Landrum, 2000). Even though special education teachers collaborated and taught alongside the general education teachers when students with disabilities were in the class, such as in an Integrated Co-Teaching (ICT) class, general education teachers felt they did not have self-efficacy to teach the special education students (Skaalvik & Skaalvik, 2007). Self-efficacy and attitudes are
intertwined; if the teacher has low self-efficacy in teaching students with disabilities, then their perception of or attitude toward special education students will be more negative or indifferent (Cook, 2001; Vaz et al., 2015). The attitudes of the teachers directly affect their actions toward students in the classroom (Cook et al., 2000; Kruglanski et al., 2015). Monsen and Fredrickson (2004) found that the characteristics of the learning environment of those teachers who were highly positive about inclusion and had positive self-efficacy when it came to teaching students with disabilities were associated with positive academic outcomes for the students with disabilities. Teachers with a high level of self-efficacy and positive attitudes toward special education students exerted greater positive influence on students and were less judgmental when it came to students’ mistakes. Conversely, teachers with low self-efficacy motivated students less and were less persistent toward student learning (Khan et al., 2015).

This study will be relevant for school administrators. Understanding the attitudes of teachers in the early grades and the factors that affect these attitudes will give administrators the knowledge to provide the correct form of professional learning for educators who work with special education students. It may also support the teachers to uncover their biases toward students with special needs. Once identified, a belief or perception can be changed with the support of professional learning (Avalos, 2011). Early childhood teachers are the educational foundation for the students. Students beginning their educational careers should be provided with teachers who recognize each student as one who can learn. The research from this study will add to the understanding of the differences between the attitude of general education teachers and the special
education teachers as well as which factors support the growth in self-efficacy of general education teachers when teaching the included students in their classes.

Teaching in an urban environment may also be a factor in the attitude of teachers toward their special education students. The intensity of an urban environment as well as the diverse nature of the urban classroom may affect the way a teacher perceives the students (Gay, 2010). This study will not include the investigation of students of color within the area of special education students; however, it should be noted that a disproportionate number of students of color are identified as students with disabilities (U.S. Department of Education, 2018). According to the 40th Annual Report to Congress on IDEA (2018), American Indian or Alaska Native, Black or African American, and Native Hawaiian or Other Pacific Islander students ages 6 through 21 had a higher level of special education service than the students ages 6 through 21 in all other racial/ethnic groups combined. Asian and White students ages 6 through 21 were less likely to have a special education service than the students ages 6 through 21 in all other racial/ethnic groups combined. This is an important issue, and additional research in this area should be conducted.

The IRIS Center at Vanderbilt University in Tennessee (2012) defined teacher perception as the thoughts or mental images teachers have about their students shaped by their background knowledge and life experiences. These experiences might involve their family history or tradition, education, work, culture, or community. All of these and more contribute to an individual’s personal lens and how he or she views others. Adediwura and Tayo (2007) defined perception citing Allport (1966): as the way we judge or evaluate others with whom we interact with in everyday life. According to
Adediwura and Tayo, perception is significant because it influences information in a person’s working memory in the attempt to understand another person’s behavior. Kruglanski et al. (2015) defined attitude as a cognitive construct and a judgement of an item that falls on a continuum of “good and bad or likable versus unlikable.” While attitude and perception are similar, it is necessary at this point to explain the difference between perception and attitude. The distinction between perception and attitude is that perception is the use of the mind or the senses to comprehend or understand a person’s surroundings, while attitude is the person’s actual feeling or way of thinking about something or someone based on their perceptions. According to Tauber (2014), perception what you see through your own personal lens and attitude is how you react to your perception.

**Rationale/Significance**

Researching teacher attitudes of special education students in the lower grades was significant because kindergarten through second grade is the foundation of instruction. As Egan (1988) explained, “Only if we get the first steps right, Plato argued, can we set the child on the proper path to educated adulthood” (p. 1). Plato’s understanding of education was that childhood and adolescence are not imperfect forms of adulthood; rather, they are their own perfection, and a proper education must attend to their cultivation (Egan, 1988).

Students enter the school system in kindergarten, and these first few years are crucial in learning to read and in understanding literacy and mathematical concepts. Students “learn to read” in kindergarten through second grade and then “read to learn” once they begin third grade. This study examined the attitudes of the early childhood (K-
2) teachers since they are at the foundation of the students’ educational experience. Teachers can shift their attitude if they know how to increase their level of self-efficacy (Avalos, 2011). An increase in teacher self-efficacy will positively impact student interactions and therefore increase the level of achievement (Cook et al., 2000). Consequently, students at the beginning of their educational experience will have the benefit of positive teacher attitude and interaction.

The literature reviewed asserted that teachers often feel unprepared to teach students with special needs, even in an ICT class where there is a special educator who is another teacher in the room (Gaines & Barnes, 2017). Teachers with high self-efficacy related to classroom management and/or instructional strategies had greater job satisfaction and felt more comfortable teaching all types of students (Klassen & Chiu, 2010). The results of this study may assist school districts in identifying areas of need and provide focused professional learning for the teachers to increase their level of self-efficacy.

An additional factor that now contributes to heightened stress levels and decreased self-efficacy among regular classroom teachers in inclusion settings is the recently implemented policy of having the teacher’s annual evaluations be partially based on their students’ standardized test scores, which could include the scores of students with disabilities (Cuevas, Ntoumanis, Fernandez-Bustos & Bartholomew, 2018; Gaines & Barnes, 2017). The precise type of professional development can increase the levels of self-efficacy of the teachers (Gaines & Barnes, 2017). If teachers attend professional learning opportunities to acquire strategies for students with special needs, they would feel more confident using these educational strategies and have a more positive view of
the skills of students with special needs and, therefore, the special education students would improve in their achievement. According to Avalos (2011) in her examination of articles on professional development for teachers, she confirmed the effectiveness of communities of learning on the improvement of teaching practice. The effects of professional development on student reading outcomes generally improved student outcomes as teachers learned to adapt teaching to individual student needs (Monsen & Fredrickson, 2004. Teacher satisfaction also increased in relation to professional development activities that catered to their needs and expectations. When the professional development contributed to the improvement of curricular understanding, it increased self-efficacy (Avalos, 2011; Klassen & Chiu, 2010).

**Historical Perspective of Special Education**

The laws and regulations used in special education have been centered on including students with disabilities in the general education setting to the greatest extent possible. Prior to the 1970s, many children with a disability were denied access to public education. Most of these children were either home schooled, did not receive any education at all, or worse yet, were institutionalized. The foundation of today’s special education law was passed in 1975 and enacted in 1977. This was Public Law 94-142, the Education for All Handicapped Children Act of 1975. This law introduced the concepts of:

1. **Free Appropriate Public Education (FAPE)** for children 3 to 21 years old;
2. Protecting the rights of children with disabilities and their parents, including due process rights;
3. **Individualized Educational Plan/Program (IEP)**;
4. **Least Restrictive Environment (LRE);** and

5. Assisting states and localities to provide for the education of all children with disabilities through federal funding.

In 1986, 10 years later, Public Law 99-457, the Education of the Handicapped Act Amendments of 1986, was enacted. These amendments saw the need for early intervention and mandated services from birth. The amendments required the development of a comprehensive system of early intervention for infants. Children from birth to 2 years of age were able to receive special education services if needed. In 1990, Public Law 101-476 was legislated which renamed Education of All Handicapped Act (EHA) to the Individuals with Disabilities Education Act (IDEA). This law expanded the eligibility categories to include autism and traumatic brain injuries, as well as defined assistive technology devices and services. Seven years later, in 1997, Public Law 105-17, called the Individuals with Disabilities Education Act Amendments of 1997, was legislated. This reauthorization of IDEA saw the initiative for transition services. It required a transition plan to be a part of every student’s IEP no later than the child’s sixteenth birthday. Transition plans provided services for students with disabilities once they graduated or left the educational system. Additionally, other major issues were addressed in this reauthorization, which included:

1. Every IEP must include present levels of performance, measurable goals, statement of services, and statement of accommodations or modifications;

2. A regular/general education teacher must be involved in the IEP;

3. Students with IEPs will participate in State assessment tests;

4. The discipline rules were designed to align with recent court decisions; and
5. The eligibility for Attention Deficit Hyperactivity Disorder (ADHD) under Other Health Impairments was addressed.

The law we follow today, Public Law 108-446, was reauthorized in 2004, as the Individuals with Disabilities Education Improvement Act (IDEIA) of 2004. IDEIA 2004 was established to make sure children with disabilities had access to a free appropriate public education with the assistance of services that met their individual needs. These services enabled the child to continue their education, in the least restrictive setting possible, in order to prepare them for life as an adult. As a result of this law, children with disabilities were given the opportunity to receive intervention (or support) services related to their disability to help them access the public school curriculum (U.S. Office of Special Education Programs, n.d.).

The New York State Commissioner’s regulations govern the practice of inclusion. The regulations state:

A student with a disability shall be provided with appropriate special education.

1. Students with disabilities shall be provided special education in the least restrictive environment, as defined in section 200.1(cc) of this Part. To enable students with disabilities to be educated with nondisabled students to the maximum extent appropriate, specially designed instruction and supplementary services may be provided in the regular class, including, as appropriate, providing related services, resource room programs and special class programs within the general education classroom.

200.1 (cc) Least restrictive environment means that placement of students with disabilities in special classes, separate schools or other removal from the
regular educational environment occurs only when the nature or severity of
the disability is such that even with the use of supplementary aids and
services, education cannot be satisfactorily achieved. The placement of an
individual student with a disability in the least restrictive environment shall:
(a) provide the special education needed by the student;
(b) provide for education of the student to the maximum extent appropriate to
the needs of the student with other students who do not have disabilities;
and
(c) be as close as possible to the student's home.

2. A student with a disability must not be removed from education in age-
appropriate regular classrooms solely because of needed modifications in the
general education curriculum. (University of the State of New York, The State
Education Department, 2016, Part 200.1)

As we continue to increase the transition of special education students into
general education settings with and without supports, we task teachers, both general
educators and special educators, to decipher how to reach all students in their classrooms.
Researching teacher attitudes and how they affect students will assist in bringing the need
for positive behaviors of teachers to the forefront in order to increase the level of
instruction for students and the increase of student achievement.

**Inclusion/Mainstreaming**

Inclusion (or mainstreaming) is the physical placement of students with special
declared inclusive instruction as an intent that all students should be educated in their
neighborhood schools, in quality and age-appropriate general education classes that use varied curriculum, instruction, and assessment to address the needs of all students.

Inclusion continues to be a bone of contention between general education teachers and administrators as more students with special needs enter general education classrooms. Reactions to inclusive practices polarize educators, families, and advocacy groups (Rea, McLaughlin, & Walther-Thomas, 2002). Inclusion advocates insist that students with disabilities have the right to be educated with general education/typically developing peers. Inclusion opponents propose that special education will no longer be “special” and that the general education setting and teachers, who are not licensed in special education, are unprepared to meet the unique needs of the students with special needs (Fuchs & Fuchs, 1994; Gregory & Noto, 2012; Rea et al., 2002). Additional coursework in special education strategies is necessary in all teacher education programs in order for teachers to be prepared to teach students with special needs in their classrooms (Shippen, Crites, Houchins, Ramsey, & Simon, 2005). Students are also affected by the attitudes of the advocates, opponents, and the teachers themselves. Monsen and Fredrickson (2004) conducted a study on student perception of the learning environment of teachers who have positive attitudes toward inclusion. The results of that study indicated that students are more highly satisfied with teachers who have strong positive attitudes toward inclusion than those teachers who have negative attitudes. Short and Martin (2005) studied teachers’ attitudes toward the inclusion of students with special needs and found that teacher attitudes positively or negatively affected the student-teacher relationship and ultimately the success of the students.
Teacher Perception/Attitude

Perceptions or attitudes of educators have always been significant when instructing students who have a disability and/or come from a marginalized group in society. Teachers’ perceptions, attitudes, and behaviors are influenced by their beliefs (Fuchs, 2010). These beliefs, accordingly, impact teachers’ behavior in the classroom. Caprara, Barbaranelli, Steca, and Malone (2006) found that teachers with high self-efficacy beliefs were more likely to implement educational innovations and to use behavior management approaches that encouraged student autonomy and reduced teacher control. Furthermore, high efficacy teachers enhanced student motivation, promoted a student’s sense of self-efficacy, and were connected to student achievement (Caprara et al., 2006). Cook (2001) and Cook et al. (2007) found that teacher attitudes of attachment, rejection, indifference, and concern were directly linked and impacted the educational experiences of students. Cook conducted two studies, one in 2001, and another with colleagues in 2007, in which he and his colleagues reframed his original survey questions. In both studies, a relationship between the general education teachers’ attitudes toward their students and the type and quality of teacher-student interactions was documented. Educating students or implementing a new initiative requires teachers to develop an awareness of their belief structures and an understanding of their perceptions (Fuchs, 2010). In order for teaching strategies to be successful for the struggling student, teachers must believe that students can be successful and that all students can learn. As noted previously, research has revealed that teachers do not feel adequately prepared to serve students with disabilities in general education classrooms (Gaines & Barnes, 2017; Shippen et al., 2005), an attitude that has persisted since the
early implementation of inclusive practices. Pearman, Huang, Barnhart, and Mellblom (1992) suggested that there were significant differences between regular education classroom teachers and special education teachers, with the latter having more positive attitudes about inclusion. Monahan, Marino, and Miller (1996) reported that over 60% of their respondents indicated that inclusion would not succeed because of resistance from regular education teachers. If teachers believed that students could not learn because of their disability and/or did not have the “capacity” to learn, students would not perform academically.

Gregory and Noto (2012) reviewed other studies that substantiated the assertion that not all general education teachers and other educational professionals favor inclusion (Moores, 2011; Volonino & Zigmond, 2007, Zigmond, Kloo, & Volonino, 2009). Despite this, inclusion, as part of the continuum, is supported by the New York State Education Department and other advocates as a service to ensure that all students, whether they have been identified with a disability or not, have access to the same educational opportunities and are expected to perform at the same benchmarks on standardized assessments that are aligned to curricular standards (NCLB, 2001). Gregory and Noto (2012) asserted, “Therefore, the highly-qualified, general education teacher, with appropriate support, is best suited to develop students’ knowledge and skills as outlined by the curriculum” (p. 1).

**Relevant Theoretical Framework**

**The Relationship Between Attitude and Action**

The relationship between attitude and action was one of the theoretical frameworks that was a foundation for this study and has been studied for well over 70
years. Kruglanski et al. (2015) cited Allport (1935) on his theory of the relationship between attitude and behavior. Allport considered attitude as the most distinctive and indispensable concept in social psychology, and regarded attitude as a reason to act. Cohen (1960) further developed the theory, affirming that attitudes were the antecedents to behavior. Conversely, Wicker (1969) in his review found little evidence that attitudes were related to behaviors. However, Wicker’s analysis included stringent criteria of various studies and explained that some of the research did not take full advantage of the data that was collected. Wicker asked researchers to find other factors that were better predictors. As other researchers conducted studies in order to disprove Wicker, Kraus (1990) conducted a meta-analysis of 83 attitude-behavior studies to determine whether there was a relationship between attitude and behavior and found that attitudes significantly and substantially predict behavior. The average attitude-behavior correlation was .38. The correlation was higher for studies when (a) the attitude was formed from direct experience with the subject, (b) the attitude was held with certainty, (c) the subject used inner beliefs and values when deciding how to behave (low self-monitor), or (d) the situation increased self-focused attention. Kruglanski et al. (2015) cited that attitude strength would drive behavior and concurred with Kraus (1990) that direct experience with the object was a strong construct that would predict behavior. This theory underscored how attitudes drove behavior and proved that negative attitudes toward subjects, such as students with disabilities, would predict negative behaviors, while positive attitudes would produce positive behaviors toward these subjects.

Shippen et al. (2005) indicated that in their study, both groups of preservice teachers, future special educators and future general educators, became slightly more
receptive to the idea of inclusion, with future special educators more receptive than future general educators after they had taken a course on exceptionalities, which corroborated the Kraus (1990) results.

**The Relationship Between Attitude and Self-Efficacy**

The social cognitive theory by Bandura (2005) was another structure that supported this study. Self-efficacy is grounded in the theoretical framework of social cognitive theory (Skaalvik & Skaalvik, 2007). Self-efficacy, that is, belief in one’s ability to succeed in specific situations or accomplish a task, enabled teachers to control the events in their lives and employed the skills necessary to achieve success (Epstein & Willhite, 2015). A sense of self-efficacy can play a major role in how a person approaches goals, tasks, and challenges. Teacher self-efficacy may be theorized as individual teachers’ beliefs in their own abilities to plan, organize, and carry out activities required to attain given educational goals (Skaalvik & Skaalvik, 2007). In addition, when working in teams, the individual teachers’ self-efficacy may be dependent on the functioning of the team (Skaalvik & Skaalvik, 2007). Bandura (1977) proposed the belief in one’s abilities was a powerful drive influencing motivation to act, the effort put forth in the endeavor, and the persistence of coping mechanisms in the face of setbacks. When teachers had the attitude that students could not learn, the feedback provided by the teacher focused on shortfalls which highlighted personal deficiencies of the students. This encouraged the negative view of students with special needs. Evidence indicated that classroom atmospheres were partly determined by teachers’ beliefs in their instructional efficacy (Bandura, 1986).
According to the social cognitive theory, teachers who did not expect to be successful with certain students, such as those with special needs, were likely to put forth less effort in preparation and delivery of instruction, and to give up much more easily at the first sign of difficulty, even if they actually knew the strategies that would assist these students if applied (Caprara et al., 2005). Self-efficacy beliefs could therefore become self-fulfilling prophecies, validating beliefs of either capability or incapability (Tschannen-Moran & Hoy, 2007). If teachers had low self-efficacy when it came to working with students with disabilities, they had a more difficult time teaching these students and found reasons why they could not educate them. Teachers who felt they needed additional training in special education techniques had low self-efficacy (De Neve, Devos, & Tuytens, 2014). The De Neve et al. (2014) study corroborated the results realized in the study by Guo, Connor, Yang, Roehrig, and Morrison (2012), which indicated that teachers with a strong sense of self-efficacy recognized they were able to affect student learning positively and accepted responsibility for student progress and success. Guo et al. also found that teachers who had positive self-efficacy spent more instructional time with the students to affect student learning. In additional research that was reviewed, self-efficacy was revealed to be one of the most influential factors in teacher attitude. Bandura reviewed Gibson and Dembo’s (1984) study which found that teachers devoted more classroom time to academic learning, provided students who had difficulty learning with the help they needed to succeed, and praised them for their accomplishments if they had a high sense of instructional efficacy. Conversely, teachers who had a low sense of instructional efficacy spent more time on nonacademic pastimes, readily gave up on students if the results were not positive, and criticized students for
their failures. In addition, teachers with low self-efficacy experienced greater difficulties in teaching, higher levels of job-related stress, and lower levels of job satisfaction (Klassen & Chiu, 2010).

Salend and Duhaney (1999) found that teachers were less receptive to inclusion/mainstreaming if they possessed low teaching efficacy, lacked experience in teaching, or did not use differentiated teaching practices or collaboration. Further studies found that teachers’ self-efficacy influenced their teaching behaviors and their students’ motivation and achievement (Skaalvik & Skaalvik, 2007; Tschannen-Moran & Woolfolk Hoy, 2001).

The Relationship Between Action and Social Context

Max Weber’s (1922, as cited in Sprowel-Loftis, 2013) action science theory predated Bandura’s social cognitive theory. Sprowel-Loftis (2013) explained Weber’s theory as the theory of social action that accepted and assumed that humans vary their actions according to social contexts and in ways that it would affect other people; when a potential reaction was not desirable, the action was modified accordingly. Action science is the study of interpersonal action. It is a mental model that helps people to understand their actions and behavior (Sprowel-Loftis, 2013). Sprowel-Loftis referred to the study conducted by Alexander and Strain (1978) regarding general education teachers who demonstrated adverse attitudes toward inclusion, and did not promote nor ensure that learning is communicated effectively; therefore, students did not perform at the appropriate academic level. Teachers’ attitudes influenced both their expectations for their students and their behavior toward them (Cook, 2001). If the teacher’s attitudes toward students with disabilities were negative, then the student’s experience was
negative, but if the teacher’s attitudes were positive, the student’s experience was positive. The Alexander and Strain study revealed that teachers’ attitudes, expectations, and behaviors influenced both the student’s self-image and academic performance.

The attitude of teachers fits into Weber’s action science theory. Teachers construct their view of the world based on their perceptions/attitudes (Trochim, 2006). A review of the literature about teachers who worked with students with special needs indicated similar outcomes; that is, students succeeded or failed according to how teachers perceived them (Gaines & Barnes, 2017; Kavale & Forness, 2000; Salend & Duhaney, 1999). Teachers’ attitudes influenced students’ achievement in several ways. Teachers with positive attitudes were more likely to implement innovations in the classroom and to use classroom management approaches and adequate teaching methods that encouraged students’ autonomy than were teachers with negative attitudes (Caprara et al., 2006).

**Relevant Background Literature**

Teacher attitudes toward the inclusion of special education students have been studied since the 1970s. In the last 20 years, studies have focused on what teachers think about integration as a policy and how they have reacted to the students in their classrooms. Kavale and Forness (2000) posited that one of the major factors in a policy or initiative, such as inclusion, succeeding or failing was the attitude of the general education teacher. General education teachers expressed some negative attitudes, especially feelings of inadequacy in teaching students with disabilities, although they remained somewhat positive about the concept of integration (Kavale & Forness, 2000). Cook (2001) reported that the attitudes of the teachers positively or negatively impacted
teacher-student interaction depending on the type of student, with an increase in indifference toward and rejection of students with disabilities in their classrooms. Research confirmed that teachers’ preconceived ideas of their students lessened the rigor and differentiation in the classroom because the teachers did not believe that their students with special needs could learn grade-level information (Fuchs 2010). In addition, the impact of inclusive classrooms on regular education teachers was not always encouraging. Studies indicated that not all teachers were prepared or felt they were prepared to teach students with special needs (Gaines & Barnes, 2017; Schwartz, 2018). Studies were conducted internationally and nationally with similar results. Teachers who had a negative perception of students with disabilities or had low self-efficacy when instructing students with special needs in their classrooms, had lower performing students. Those teachers who had high self-efficacy had higher performing students (Arrah & Swain, 2014; Avramidis, Bayliss & Burden, 2000; Fuchs, 2010; Gaines & Barnes, 2007; Lopes, Monteiro, Sil, Rutherford, & Quinn, 2004). Teacher preparation courses that included special education coursework or strategies promoted positive attitudes toward special education students among both general and special education teachers. In addition, field experience combined with course work enhanced the understanding of students with special needs among all teacher candidates (Shippen et al., 2005).

While researchers have focused on general education teachers’ attitudes toward students with disabilities and inclusion, few studies have examined kindergarten through second-grade teachers, who are the foundation of education for our early learners. This
study examined the following questions to determine the attitudes of early childhood teachers of students with disabilities in their classrooms.

**Research Questions**

1. What are the differences between K-2 general education and special education teachers in their cognitive, affective, and behavioral attitudes toward educating students with disabilities?

2. To what extent does the number of years teaching in an inclusive environment affect teacher attitudes toward students with disabilities?

3. What factors will positively influence the attitude of the general education teacher and the special education teacher?

**Hypotheses**

1. There will be significant differences between K-2 general education and special education teachers’ cognitive, affective, and behavioral attitudes when educating students with disabilities.

2. The number of years of teaching in an inclusive environment will affect teacher attitudes toward students with disabilities.

3. Increasing the amount of professional learning on strategies for teaching special education students will have a positive effect on the attitudes of teachers toward the students with disabilities in their classes.

**Definition of Terms**

There are many acronyms and definitions in special education. The first definition that must be identified is the term disability. According to the Americans with Disabilities Act (1990), a disability is a physical or mental impairment that substantially
limits one or more major life activities, a record of such an impairment, or being regarded as having such an impairment. In education, a student with a disability has an impairment that limits his/her educational experience. Many disabilities are visible to the eye; however, one type of disability is not necessarily observable. The term learning disability is widely used for the set of disabilities that you cannot see. According to Bano, Dogar, and Azeem (2012), the most widely accepted definition of learning disability is that proposed by the National Advisory Committee on Handicapped Children (Lilly, 1977):

Children with special learning disabilities exhibit a disorder in one or more basic psychological processes involved in understanding or in using spoken or written languages. These may be manifested in disorders of listening, thinking, talking, reading, writing, spelling or arithmetic. They include conditions which have been referred to a perceptual handicap, brain injury, dyslexia, minimal brain dysfunction, development, aphasia, etc., they do not include learning problems which are due to primarily to visual, hearing or motor handicaps, to mental retardation, or emotional disturbance.

Since the early 1960s, Bateman (1964) suggested the term learning disabilities has been used as a way of referring to children who experience problems in learning but do not fit other classifications of handicapping. Special education students in co-teaching or inclusion settings are frequently diagnosed with a learning disability in lieu of other forms of disabilities.

The act of including students with disabilities in regular school classes is called inclusion or mainstreaming. Mainstreaming typically involves students with
disabilities participating in general education settings during various subjects in the school day. Inclusion denotes students with disabilities involved in the general education setting for most, if not all, of the school day (Morin, 2020).

When students with disabilities are involved in the general education setting for the majority of the day, they may be programmed in what is called an integrated co-teaching (ICT) class. This type of class is considered a service model in which a general education teacher and a special education teacher jointly provide instruction to a class that includes students both with and without disabilities to meet the diverse learning needs of all students in a class.

Since there are two teachers in an ICT class, a general education licensed teacher and a special education licensed teacher, it would be best now to define the difference in training and licensure of the two teachers. A general education teacher takes courses in how to teach students in either the specific subject that is being taught, such as English, math, science, history, etc., or the grade level of the students they plan to teach, i.e., early childhood (Grades K-2), elementary grades (Grades 1-6), or middle school/high school (Grades 7-12) which includes a subject area. The pre-teacher would also student teach in the particular subject or area that was being studied. A general education teacher track will include one or possibly two courses in special education, but there would be no special education student teaching (no hands-on experience). A special education teacher track would have courses in general education and special education, with additional classes in the different types of disabilities, from learning disabilities to severe disabilities. In addition, pre-teachers in special education would student teach in classrooms that include special education students, so the classes could range from ICT to
self-contained special education classes. The licensing requirements are the same for general education and special education teachers, except the license for special education includes taking an additional exam called the Content Specialty Test (CST) (AllEducationSchools.com, 2018).

The final definition that needs clarification is attitude. According to the Oxford Dictionary, attitude is a settled way of thinking or feeling about something. Teacher attitudes toward students can have a positive or negative consequence on the students in their classes.

**Limitations**

There were some limitations to this study which should be reviewed and resolved in future studies.

The number of participants for this study was limited to approximately 450 teachers and, since it was voluntary, there was the possibility that a percentage of teachers would not complete the survey. Reliability is a measure of effective quantitative studies, so although the sample may be small, a focused effort was placed on ensuring a high rate of return of the surveys.

Another limitation in this study was the unexpected finding that all factors, when analyzed in the cognitive dimension, had no significance. Additional analyses should be conducted for an understanding of these results.

Additionally, this research was conducted with only early childhood educators in order to determine how their attitudes affect students with disabilities at the beginning of the students’ educational experience. Further research with educators in grades other than kindergarten through second grade and in additional districts throughout the City of
New York would be beneficial to determine if the attitudes of teachers affect students as they progress throughout their educational life.

Research in an urban environment may have also skewed the data. Results may have differed if the study were conducted outside of an urban environment, in either a suburban or rural area.

Another limitation was that this was a quantitative study only. In order to acquire richer information on the attitudes of teachers, a qualitative study should be conducted in conjunction with the quantitative study. Qualitative questions would extract hidden biases teachers may have and listening directly to teachers about their attitudes would have a greater impact on the study.

One additional limitation was surveying teachers’ attitudes about only their students with disabilities in their classrooms and not including students of color with disabilities specifically. Teacher attitudes toward their students of color is an extremely important and present consideration in today’s society and should be examined, particularly since many of the students with special needs are minority students. The inclusion of these data would enrich the results of the current research.
CHAPTER 2

Literature Review

According to the 35th Annual Report to the U.S. Congress on the Implementation of IDEA (2013), 61.1% of students with varying disabilities spend 80–100% of the school day in a regular education classroom. Of the remaining 39.9%, almost half of the students spend between 40% and 80% of the school day in regular education classrooms while the other half of the students are either spending less than 40% of their day in the general education setting or are in self-contained classrooms. In the 40th Annual Report to the U.S. Congress on the Implementation of IDEA (U.S. Department of Education, 2018), the majority (63.1%) of students ages 6 through 21 served under IDEA, Part B, were educated in the regular classroom 80% or more of the day. A total of 18.3% of students ages 6 through 21 served under IDEA, Part B, were educated in a regular classroom 40% through 79% of the day, and 13.4% were educated in the regular classroom less than 40% of the day. Only 5.1% of students ages 6 through 21 served under IDEA, Part B, were educated outside of the regular classroom in “Other environments.”

The nation is continuing to educate more students with disabilities in the general education classroom. The volume of research on teacher attitudes toward special education students in their classrooms has decreased since the early 2000s. Therefore, there is a continued need for research in the area of positive teacher attitude. In order for students to succeed in the classroom and have positive interactions with their teachers, teachers must have positive attitudes toward the students, particularly in the early grades. Yu’s (2019) study revealed that instructional professionals in Head Start programs had
positive attitudes toward inclusion; however, the participating teachers also identified a lack of professional development as the greatest barrier to successful inclusion.

The literature review for this study was predicated on the research that supported the theoretical premise of the relationship between attitudes and actions in the classroom.

**The Relationship Between Attitudes and Actions in the Classroom**

Kruglanski et al. (2015) conducted an analysis of prior research involving the relationship of attitudes and actions. It was suggested that for object-attitudes to drive a specific behavior, a chain of contingencies must be met: liking must be transferred into wanting, wanting must evolve into a goal, the goal must be momentarily dominant, and the specific behavior must be chosen as means of goal pursuit. The model that was presented in this study thus specified a set of mediating processes that transpired between attitudes and behavior. Kruglanski et al. began by citing Allport (1935), noting that the concept of attitude is extremely important in social psychology and that attitudes do predict behavior. The studies that were analyzed were conducted under two major research programs centered on the notions of (a) attitude strength and (b) behavior focus. The attitude strength program adopted the premise that only strong attitudes drove behavior, and attitude strength was demonstrated by indicators such as accessibility, extremity, confidence, and elaborative basis. Direct personal experience with an object was one of the most important indicators of the attitude-behavior relationship. Experimental evidence that was gathered by Kruglanski et al. suggested that individuals who acquired their attitudes through direct experience with the attitude objects behaved (toward those objects) more consistently with those particular attitudes than those who
had indirect experiences with the objects. This view was aligned with studies concerning teacher attitudes of the students themselves (Lopes et al., 2004).

The behavior focus program maintained that general object attitudes were unlikely to be related to behavior and that behavioral prediction was better accomplished based on attitudes toward the behavior itself. This correlated to other research that had been conducted using teacher attitude and action (Cook, 2001; Cook, Cameron, & Tankersley, 2007). Kruglanski et al. (2015) concluded their analysis by suggesting a more realistic approach to the prediction of behavior that may require familiarity with the individual’s motivational makeup and the relevant structure of the situation, including goals that the situation may activate and what the individual may understand from the situation.

Cook (2001) examined teachers’ attitudes toward students with disabilities in their classrooms and if the severity of the disability had an effect on the perception of the teachers. Cook surveyed 70 teachers in four attitudinal categories: attachment, concern, indifference, and rejection. The prompts from the survey were as follows:

**Attachment** – If you could keep one student another year for the sheer joy of it, whom would you pick?

**Concern** – If you could devote all your attention to a child who concerns you a great deal, whom would you pick?

**Indifference** – If a parent were to drop by for a conference, whose child would you be least prepared to talk about?

**Rejection** – If your class was to be reduced by one child, whom would you be relieved to have removed?
Cook’s findings supported the hypothesis that students with severe disabilities were overrepresented in the category of indifference, and the students with mild disabilities were over-represented in the category of rejection. Cook (2001) posited that despite the mild disability label and that the students with mild disabilities did not appear significantly different than their non-disabled peers, teachers did not differentiate their instruction or expectations of these students. Teachers held these students to the same behavior and performance levels as their non-disabled peers, so when the students with disabilities did not perform at the same level, teachers rejected these students at a greater rate.

In 2007, Cook restated the attitudinal prompts from his 2001 study to incorporate a new rating scale. The new prompts were:

- I would like to keep this student for another year for the sheer joy of it.
- I would like to devote all my attention to this student because he/she concerns me.
- I would not be prepared to talk about this student if his/her parents dropped by for a conference.
- If my class was to be reduced, I would be relieved to have this student removed.

Fifty inclusive elementary teachers in 12 Northeast Ohio schools rated their agreement with each statement for selected students on a 4-point Likert-type scale. A 4-point scale was selected to (a) force teachers to make a judgment as to whether each statement was true or not in relation to each child rated and (b) allow teachers to make differentiations regarding the degree to which the statements were true or not true. The teachers rated all
of their students with disabilities and four students without disabilities in each of their classrooms in the attitudinal categories of attachment, concern, indifference, and rejection. Results indicated that in comparison to students without disabilities, included students with disabilities received significantly higher ratings of teacher concern, indifference, and rejection, and significantly lower attachment ratings. Student behaviors often triggered teacher rejection. Cook posited that reducing teacher rejection appeared to necessitate proactive intervention. Training and support in implementing behavior management techniques may enable teachers to better understand and change inappropriate behavior, rather than allowing it to engender rejection. The results that teachers rated themselves as significantly more concerned, indifferent, and rejecting toward their included students with disabilities, as compared to their students without disabilities, can have important implications for inclusive policy and practice.

Vaz et al. (2015) conducted a study designed to identify the factors associated with primary school teachers’ attitudes toward the inclusion of students with special needs in general education settings. Seventy-four primary educators in Western Australia participated the Opinions Relative to Integration of Students with Disabilities (ORI) scale and Bandura’s Teachers’ Efficacy Scale. Each of these teachers taught students with a disability or chronic condition (i.e. asthma, diabetes, thyroid dysfunction), and these students were in their class for at least 80% of the week. The ORI measured teachers' attitudes toward the integration of students with disabilities in regular settings by presenting statements such as: “Integration of special needs students will require significant changes in regular classroom procedures,” or “The integration of special needs students can be beneficial for regular students.” The ORI contained 25 positively and
negatively worded statement options rated on a 7-point Likert scale, with responses to the items ranging from -3 (I disagree very much) through +3 (I agree very much). The participants also completed the 30-item Bandura Teachers’ Efficacy Scale to assess teachers’ efficacy beliefs. This scale measured perceived efficacy to influence decision making, use of school resources, instructional and disciplinary practices in school, enlisting parental involvement, enlisting community involvement, and the creation of a positive school climate. Measurements were anchored on a 5-point scale, with notations in the range of “nothing, very little, some influence, quite a bit, and a great deal.” Items were scored such that a higher score indicated greater efficacy. Results suggested that teachers with three factors: male teachers, teachers who were 55 and older, and teachers with low self-efficacy in their teaching skills exhibited negative teacher attitudes toward inclusion of special education students. One factor, teachers who had training in teaching students with special needs, displayed positive attitudes toward inclusion. According to this research, there was consensus that teachers’ attitudes toward inclusion was critical when implementing the inclusive environment and for these strategies to be successful. This study provided greater insight into the significance of gender, age, teaching self-efficacy, and targeted training on attitudes toward teaching students with disabilities. It is significant to note that knowledge appeared to be a key factor that influenced teachers’ ability to change teaching practices. Professional learning in teaching students with disabilities was associated with positive attitudes toward inclusion.

The Relationship Between Teacher Education and Attitudes

Shippen et al. (2005) conducted a study on preservice teachers’ attitudes toward including students with disabilities in general education settings. The researchers
compared future educators on two dichotomous scales: hostility/receptivity and anxiety/calmness. Graduate and undergraduate preservice teachers from three universities completed the Preservice Inclusion Survey (PSIS) during the first and last class sessions in a course on exceptionalities. Of the participants, 29% were future special educators, 46% were future general educators, 21% were future dually certified in both special education and general education, and 4% did not respond about their teacher training specialization. The participants completed a survey at the beginning and end of the course that consisted of a one-paragraph hypothetical scenario regarding serving students with disabilities in inclusive classes. The scenario was followed by a list of 17 adjectives that were rated on a 5-point Likert-type scale delineated as negative, somewhat negative, neutral, somewhat positive, and positive feelings toward the scenario. The survey was given before the university students took the course on exceptionalities and then after the course. The results indicated that there was a lessening of hostility toward students with disabilities included in the general education setting, but this may have been due to the IDEA that the preservice teachers learned about in class. However, even though knowledge of this mandate may have reduced the hostility, there was still considerable resistance on the part of future general education teachers, as their attitude continued to stay in the “neutral” category of the survey. In order to increase the level of comfort in having special education students included in the general education classroom, Shippen et al. (2005) noted that field experience should be included into the exceptionalities class coursework. Preservice teachers would then be able to have hands-on experience with students with special needs in the classroom and would have a veteran, licensed teacher to guide them.
Research by Avramidis et al. (2000) in England revealed that teachers who had been implementing inclusive programs, and therefore had active experience of inclusion, possessed more positive attitudes. They found that generally, the participants appeared to think positively of the overall concept of inclusion, which was part of the increase in the level of integration throughout the area. However, pupils with emotional and behavioral difficulties were seen as causing more significant concern and stress for the teachers than pupils with other difficulties. The teachers believed they needed additional training if they were going to teach students with emotional and behavioral difficulties. In addition, Avramidis et al. reviewed the study by Thomas (1985), who administered a comparative study in Devon (England) and in Arizona (USA), and found that a majority of the participants were against the integration of children with intellectual difficulties (the moderate learning difficulties group) in England and the educable mentally retarded (EMR) in the USA. In the Thomas study, attitudes were more positive toward integration when the contact special educator also held positive attitudes toward integration, and when there was confidence in selecting appropriate teaching methods. Similarly, other past attitude studies have suggested that general educators were not ready to accept students with special needs unless there was additional professional learning (Bano et al., 2012; Barton, 1992).

Gaines and Barnes (2017) found clear data on negative attitudes in inclusive classrooms. Two questions in their survey, in particular, Item 2; “I believe that students with a disability should be taught in special education schools” and 4: “I believe that any student can learn in the regular curriculum of the school if the curriculum is adapted to meet their individual needs,” elicited the least positive responses regardless of
demographic group. The two items were similar in spirit insofar as they expressed the belief that students with special needs should receive instruction in other than regular classrooms. Participants in Gaines and Barnes’ study (2017) were 90 kindergarten through 12th-grade regular education teachers from elementary, middle, and secondary schools in two school districts in the Florida Panhandle. Only the regular education teachers were surveyed; no special education or special content area teachers were included. The survey they used was a Likert scale: Multidimensional Attitudes Toward Inclusive Education Scale (MATIES) (Mahat, 2008). Survey items were categorized into three domains: cognitive, affective, and behavioral, with half of the items expressing positive attitudes about inclusion and the other half, negative attitudes. As a result of the study, Gaines and Barnes theorized that it was possible that attitudes and perceptions may shift and that populations of teachers are always in flux. The identification of areas requiring professional development (PD) should be an ongoing endeavor. There was an expectation that faculty relied on past experience with a particular instructional model, such as inclusion, and that was no longer the case. It was recognized that professional development should continue through the year and be coherent year after year. Gaines and Barnes suggested that even though novice teachers were brand new from their educational institutions, recent coursework, and clinical experiences, the actual implementation of the models and theories had not been achieved.

Research by Arrah and Swain (2014), even though their study was conducted with teachers in secondary schools in Cameroon, resulted in data that mirrored research results in the United States; that was, the majority of the general and special education teachers indicated that they had knowledge of the special education students but were unprepared
to teach these students. However, almost 77% of the teachers in this study had not taken a course in special education. In the United States, all teachers in teacher education programs must take a minimum of one special education course in order for education degrees to be conferred. Teachers in the Arrah and Swain study and other studies had higher satisfaction rates and increased student outcomes when they took courses in special education or had professional learning in employing strategies for students with disabilities (Shippen et al., 2005).

Fuchs’s (2010) qualitative study examined teachers’ perceived barriers to including special education students in their classrooms. This study was achieved using group interviews (focus groups) and individual interviews and was focused on the experiences of general educators in a suburban area of a major midwestern city. The participants were elementary school teachers and were also in a master’s degree program in teacher leadership. Ten of the teachers, taking a summer course in this master’s degree program, initially volunteered to participate. Two focus groups consisting of five participants each were formed. Each group was interviewed using a standard set of open-ended questions derived from the research question: What are general educators’ beliefs about current mainstreaming practices? Once the initial focus group was conducted, five of the 10 teachers were selected to participate in follow-up interviews and classroom observations. Each of the five teachers met the following criteria: (a) currently teaching in a general classroom setting, (b) had experience with students with disabilities in the general classroom setting, and (c) were willing to participate in all subsequent portions of the study. The open-ended questions included general thoughts and feelings about: (a) inclusion, (b) their level of preparedness related to their teacher education programs, (c)
their perceived level of success in educating children with disabilities in the general classroom setting, and (d) their recommendations for improving current practices. The general classroom teachers revealed common challenges within their classroom contexts that inhibited their success in educating children with disabilities in the general classroom setting. Based on patterns that emerged from the data collected, the following themes were examined: (a) lack of administrative support, (b) teachers’ perceived lack of support from special educators and support staff, and (c) teachers’ lack of sufficient preparation in their preservice programs. In theory, most of the participants agreed that inclusion was a positive educational placement and that both students with and without disabilities benefitted from being in the same classroom. However, the teachers in this study did not favor inclusion, in its current practices, because they felt unprepared to meet the demands and responsibilities accompanying it. This corroborated the findings of other studies. It is important that, we, as the educational community, acknowledge the daily challenges of teachers. Increasing the level of support (from administrators and special education staff), consistent professional development, and improved preservice preparation will improve teachers’ attitudes and increase teacher efficacy (Avramidis et al., 2000).

**The Relationship Between Teacher Self-Efficacy and Attitudes**

A study conducted by Lopes et al. (2004), in Portugal, assessed 430 teachers, 79% regular education teachers and 21% special education teachers from first to ninth grade, to determine their sense of efficacy and perceptions about teaching students with learning and/or behavior problems. The results suggested that teachers’ sense of efficacy diminished as difficult students grew older. However, these teachers did not reject hard-to-teach students; rather, they thought they were not teaching them appropriately. The
teachers felt they needed additional training in order to support these students. Most teachers felt that difficult students would benefit from specific curricula in resource rooms or with extra help in regular classrooms. Lopes et al. stated:

the regular responses do not show a clear divide between regular and special education teachers’ attitudes and perceptions. The division is clearer between primary and secondary teachers irrespective of regular or special education status, with the latter expressing more negative feelings toward teaching difficult students. (p. 394)

This impactful research acknowledged that if students can be instructed with specific attention to their needs earlier in their educational experience, secondary teachers may have less negative attitudes of special education students and feel more confident in their preparedness to teach and support all students.

Another self-efficacy study was conducted by Skaalvik and Skaalvik (2005). Two hundred and forty-four elementary and middle school teachers (first-10th grade) in Norway participated in this study. Of the participants, 63% were women. The age of the teachers varied from 27 years old to 65 years old. Participants completed a questionnaire in which their self-efficacy was evaluated on the following six subscales: Instruction, Adapting Education to Individual Students’ Needs, Motivating Students, Keeping Discipline, Cooperating with Colleagues and Parents, and Coping with Changes and Challenges. The analysis clearly supported the conceptualization of teacher self-efficacy as a multidimensional construct. Strong support was found in six separate but correlated dimensions of teacher self-efficacy, in all of the subscales.
Hwang and Evans (2011) surveyed primary teachers in Korea but included research from many other international studies. All studies were comparable in their results. Teachers believed in including students with disabilities in the general education setting but felt that they were not equipped to handle this type of student. Hwang and Evans’s participants were comprised of general education teachers from three primary schools in Seoul, Republic of Korea, who had classes that included one student with disabilities. The participants ranged in age from mid-twenties to sixties. The majority of teachers (27 out of 29) were women. The students with disabilities typically spent up to two hours a day studying with special education teachers in resource rooms outside the mainstream classroom. The rest of the time they were in the mainstream classroom. The data collection from Hwang and Evans’s study included a teacher Likert scale questionnaire and interviews. The questionnaire provided quantitative data about teachers’ attitudes toward inclusion in two parts. Part 1 collected demographic information, while Part 2 was comprised of 25 statements designed to examine teachers’ perceptions toward inclusion, their willingness to teach students with disabilities, the positive and negative results of inclusion for students with disabilities, their attitudes toward collaboration and instructional adaptation, the day-to-day issues they faced in implementing an inclusive education program, and implementation problems hampering inclusion. Themes addressed in the interview included the issues and problems faced in catering to students with disabilities, professional learning opportunities teachers access with regard to inclusion, their personal views on the positive and negative outcomes of inclusion, and the impact of inclusion on students with and without disabilities. Hwang and Evans’s results indicated that general education teachers presented slightly more
positive than negative attitudes toward inclusion, with 41.37% in support of the concept of inclusion. Conversely, with respect to willingness to educate students with disabilities, 55.16% of general education teachers indicated they did not wish to teach these students in their classes because they did not have the expertise. Even teachers who believed in the idea of inclusion were reluctant to accept students with disabilities in their classroom, and only 31.02% exhibited a stable willingness to teach students with disabilities. Hwang and Evans’s survey revealed that more than half of the teachers believed that inclusion brings social benefits for students with disabilities. Approximately 58% believed that inclusion provided students with positive role models, yet only 24.13% saw academic benefits coming from inclusion. The majority of teachers (75.85%) felt that students with disabilities would receive a better education in a special education classroom.

These studies provided solid evidence that the majority of general education teachers without special education experience or courses in special education and/or who presented with low self-efficacy had more negative attitudes toward students with disabilities in their classes. When general education teachers they found themselves ill prepared to teach students with special needs or believed these students could not learn, students with disabilities would not be as successful in the general education classroom as they would be if the teachers had positive attitudes toward their abilities.

Summary

The studies in this review of the literature have revealed elements of positive self-efficacy, teacher training, and experience as factors that would support students with disabilities in their classrooms. A limitation in these studies, however, was that no study
focused only on early childhood teachers. This study targeted teachers in kindergarten through second grade, who were at the beginning of students’ educational careers. Revealing the attitudes of teachers will help the teachers themselves look deeper into their own self-efficacy to make positive changes. In addition, specific professional development, according to teacher need within the early grades, can be provided by the school or district. Often, professional development is provided to teachers without the specificity to support each teacher’s need. Schools and districts should employ these results, as they have the responsibility to provide the appropriate professional development opportunities for teachers.
CHAPTER 3

Method

While researchers have focused on general education teachers’ attitudes toward students with disabilities, very few of the studies have been conducted with kindergarten through second-grade teachers, who are the foundation of instruction for our early learners. This study examined the following questions to determine the attitudes of teachers of students with disabilities in their classrooms.

Specific Research Questions

1. What are the differences between K-2 general education and special education teachers in their cognitive, affective, and behavioral attitudes toward educating students with disabilities?
2. To what extent does the number of years teaching in an inclusive environment affect teacher attitudes toward students with disabilities?
3. What factors positively or negatively influence the attitude of the general education teacher and the special education teacher?

Hypotheses

1. There will be significant differences between K-2 general education and special education teachers’ cognitive, affective, and behavioral attitudes when educating students with disabilities.
2. The number of years of teaching in an inclusive environment will affect teacher attitudes toward students with disabilities.
3. Increasing the amount of professional learning on strategies for teaching special education students will have a positive effect on the attitudes of teachers toward the students with disabilities in their classes.

**Research Design and Data Analysis**

The current study was built on a pilot study conducted as part of the doctoral coursework in Advanced Educational Research. The pilot examined teacher perception. The instrument used was a 26-item Likert scale, from Arrah and Swain’s (2014) study: “Teachers’ Perceptions of Students with Special Education Needs in Cameroon Secondary Schools.” Additional items for the survey were taken from the study by Margaret Gromoll (2008): “Teacher Perceptions of the Achievement of Students with Learning Disabilities on Statewide Assessments.” The survey was given to five general education licensed and five special education licensed teachers in ICT classes in kindergarten through second grade in two schools in New York City. It was a quantitative study using the scores as the dependent variable from the Likert scale survey. Results indicated that while most of the teachers believed that special education students achieve at a higher rate in an inclusion class (integrated with non-disabled peers), there were significant concerns around special education students succeeding in general education classes and around their presence in the classroom affecting their non-disabled peers. This is an important revelation since we, as a nation, are moving to more inclusive settings for our students with disabilities, and if teachers perceive that these students will not achieve in their classrooms, the special education students will not be as successful.

The researcher employed the survey from researchers in Cameroon for the pilot study. While this survey was appropriate at the time, through additional review of the
literature, the researcher selected a more aligned survey to use in the current study. The adapted version of the Attitudes Towards Teaching All Students (ATTAS-mm) survey, created by Gregory and Noto (2012), was utilized for the current study.

**Target Population**

The surveys were disseminated to elementary (kindergarten to second grade) school teachers in 35 schools in one district in the New York City Department of Education. The district is located on the western side of the borough of Queens, New York. The borough of Queens is the most diverse borough in New York City, and the target district is the most diverse district in Queens. The schools in the target district educate approximately 37,000 students within the elementary, middle, and high schools with approximately 5,000 students in kindergarten through second grade. The district is considered a Title 1 district as per the definition of the federal Elementary and Secondary Education Act (ESEA), as amended by the Every Student Succeeds Act (ESSA).

Title 1 is a federally funded program supporting elementary and secondary education. Public schools receive federal funding from their Local Education Agencies (LEAs) based on the number of students from low-income households who attend the schools in the district.

There were typically four to five teachers of a grade in each school, so the surveys were delivered to approximately 450 teachers. The principals of the elementary schools were made aware of the survey. The researcher dropped off and picked up the surveys from the teachers. Teachers eligible for the survey currently had or previously had students with disabilities in their class(es). The general education teachers were currently in or had been a part of an ICT class or had students with disabilities in their general
education class. The special education teachers had their own self-contained special education class, were part of an ICT team, or had been teachers for those students with special education teacher support services (SETSS) on their IEPs. The surveys remained anonymous, only noting whether the teacher was a general education teacher or a special education teacher, grades taught by the teacher, the number of years of teaching experience, and experience teaching students with disabilities. The summary of demographic data of the respondents is displayed in Table 3.1. It should be noted that the degree attained by the respondents was not considered a significant factor in the attitude of either the general education or special education teachers.

Three hundred twenty-seven teachers who teach in kindergarten through second grade returned the survey. The majority of respondents were female, 241 were general education teachers, and 86 were special education teachers. With the number of special education students entering the system and the increase of ICTs, less than one-third of the teachers had a special education license. It was expected that a larger number of special education teachers would be employed and surveyed. However, according to the New York City Department of Education vacancy list, special education licensed teachers were always in demand.
Table 3.1

*Teacher Type, Gender, Highest Education Level, and Teaching Experience as a Percentage of Sample (n = 327)*

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Education Teacher</td>
<td>241</td>
<td>73.7</td>
</tr>
<tr>
<td>Special Education Teacher</td>
<td>86</td>
<td>26.2</td>
</tr>
<tr>
<td>Male</td>
<td>14</td>
<td>0.04</td>
</tr>
<tr>
<td>Female</td>
<td>313</td>
<td>95.7</td>
</tr>
<tr>
<td>Bachelor’s Degree</td>
<td>14</td>
<td>0.04</td>
</tr>
<tr>
<td>Master’s Degree</td>
<td>122</td>
<td>37.3</td>
</tr>
<tr>
<td>Master’s +30</td>
<td>185</td>
<td>56.5</td>
</tr>
<tr>
<td>Doctorate</td>
<td>3</td>
<td>0.009</td>
</tr>
<tr>
<td>0-4 years of teaching experience</td>
<td>46</td>
<td>14.0</td>
</tr>
<tr>
<td>5-9 years of teaching experience</td>
<td>59</td>
<td>18.0</td>
</tr>
<tr>
<td>10-14 years of teaching experience</td>
<td>51</td>
<td>15.6</td>
</tr>
<tr>
<td>15-19 years of teaching experience</td>
<td>53</td>
<td>16.2</td>
</tr>
<tr>
<td>20+ years of teaching experience</td>
<td>102</td>
<td>31.2</td>
</tr>
<tr>
<td>0 college special education courses taken</td>
<td>47</td>
<td>14.3</td>
</tr>
<tr>
<td>1-3 college special education courses taken</td>
<td>121</td>
<td>37.0</td>
</tr>
<tr>
<td>4+ college special education courses taken</td>
<td>145</td>
<td>44.3</td>
</tr>
</tbody>
</table>

Only 14 participants were males. The fact that only early childhood teachers were surveyed may have contributed to that number. Historically, early childhood teachers have been predominantly female.
The majority of the participants had their master’s or master’s +30. This finding was anticipated because of the United Federation of Teachers’ contract stating that teachers would receive increases in salary when additional courses were taken and the criteria for a master’s or master’s plus additional credits (+30) was achieved. Fourteen teachers had only their bachelor’s degree, and three had their doctorate.

**Instrument**

The instrument utilized was an adapted version of the ATTAS-mm survey which was created by Gregory and Noto (2012). Their survey incorporated 11 biographical questions as well as a 9-item Likert scale for information regarding attitudes of teachers. The biographical information included gender, level of education, years of experience, extent of experience working with individuals with disabilities in schools, and how long the participants planned to continue teaching. The biographical information was adapted to include whether the participant was a general education teacher or a special education teacher, rather than other roles in the education field. The 9-item Likert scale statements were not altered. Permission to use the survey was requested by the researcher and granted by the creators.

The 7-point Likert scale format was used in the 9-item teachers’ survey asking participants to indicate their agreement or disagreement with the statements posed to them by selecting one of the choices presented: Agree Very Strongly, Strongly Agree, Agree, Neither Agree nor Disagree, Disagree, Strongly Disagree, and Disagree Very Strongly. The survey statements measured the cognitive, affective, and behavioral dimensions of attitude. The cognitive dimension questions related to the core skills the brain uses to think, read, learn, remember, reason, and pay attention. These are the skills
that take incoming information and place it into the knowledge that is used every day. The affective dimension statements related to moods, feelings, and the social-emotional part of attitude. The behavioral dimension statements related to the observable activity or response to stimuli.

**Reliability and Validity of Instrument**

According to Gregory and Noto (2012), the purpose for their survey was the belief that the general education teacher had the greatest influence on a student’s success in school, and a teacher’s attitude toward inclusion was a major factor in determining whether inclusion will be successful.

Gregory and Noto (2012) piloted the survey, understanding that in order to have a successful instrument that measured attitudes, they would need to gauge the three different components of attitude: cognitive, behavioral, and affective. Existing and new items were brainstormed into three pools. From these pools of items, 27 items were selected by the researchers to be a part of the pilot instrument. The items consisted of positively worded statements to which respondents selected their level of agreement (5-point Likert scale). Validity was ensured through their alignment with the literature, narrow focus on the content, and vetting by a small panel of experts. The instrument was piloted using SurveyMonkey.

The data collected were designed to permit factor analyses and item selection to create a scale that would be a reliable measure of the three facets of attitudes. Additionally, the entire instrument and each of the subscales was reliable, as measured by Cronbach’s alpha ($\alpha = 0.8$, good; $\alpha = 0.6$, acceptable).
After the pilot commenced, one item was determined to have grammatically poor wording and was excluded from the analyses, so the pilot evaluation was on 26 items.

Statistical analyses were run using SPSS (PASW Statistics 18.0). An initial factor analysis was conducted and only items with initial correlations of 0.7 or greater were retained. This resulted in the retention of 12 items. The 12 items were subjected to Principal Component Analysis. Items labeled 9, 10, and 12, in the survey appeared to cross load on components one and two, so they were eliminated. This resulted in a nine-item instrument with three items identified for each component of attitude.
Table 3.2

*Initial Factor Analysis, Rotated Component Matrix*

<table>
<thead>
<tr>
<th>Item</th>
<th>Component 1</th>
<th>Component 2</th>
<th>Component 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. All students with mild to moderate disabilities should be educated in regular classrooms with nonhandicapped peers to the fullest extent possible.</td>
<td>.050</td>
<td><strong>.858</strong></td>
<td>.187</td>
</tr>
<tr>
<td>2. Students with mild to moderate disabilities can be trusted with responsibilities in the classroom.</td>
<td>.315</td>
<td><strong>.790</strong></td>
<td>.236</td>
</tr>
<tr>
<td>3. I would like people to think that I can create a welcoming classroom environment for students with mild to moderate disabilities.</td>
<td><strong>.425</strong></td>
<td><strong>.758</strong></td>
<td>-</td>
</tr>
<tr>
<td>4. Most or all separate classrooms that exclusively serve students with mild to moderate disabilities should be eliminated.</td>
<td>.086</td>
<td>.066</td>
<td><strong>.809</strong></td>
</tr>
<tr>
<td>5. Students with mild to moderate disabilities can be more effectively educated in regular classrooms as opposed to special education classrooms.</td>
<td>.230</td>
<td><strong>.482</strong></td>
<td><strong>.684</strong></td>
</tr>
<tr>
<td>6. Students with mild to moderate disabilities should be taught in regular classes with nondisabled students because they will not require too much of the teacher's time.</td>
<td>.115</td>
<td>.126</td>
<td><strong>.848</strong></td>
</tr>
<tr>
<td>7. I would like to be mentored by a teacher who models effective differentiated instruction.</td>
<td><strong>.920</strong></td>
<td>.276</td>
<td>.039</td>
</tr>
<tr>
<td>8. I want to emulate teachers who know how to design appropriate academic interventions.</td>
<td><strong>.951</strong></td>
<td>.208</td>
<td>.123</td>
</tr>
<tr>
<td>9. Students with mild to moderate disabilities have the ability to contribute meaningfully to their educational program.</td>
<td>.626</td>
<td>.646</td>
<td>.036</td>
</tr>
<tr>
<td>10. I would like my mentor to believe that I work well with students with mild to moderate disabilities.</td>
<td>.699</td>
<td>.584</td>
<td>.131</td>
</tr>
<tr>
<td>11. I believe including students with mild/moderate disabilities in the regular classrooms is effective because they can learn the social skills necessary for success.</td>
<td><strong>.770</strong></td>
<td>.209</td>
<td>.320</td>
</tr>
<tr>
<td>12. I believe that students with mild and moderate disabilities benefit from active learning.</td>
<td>.555</td>
<td>.661</td>
<td>.076</td>
</tr>
</tbody>
</table>

Three statements in each dimension were collected and determined reliable as measured by Cronbach’s alpha. The first subscale measured the cognitive dimension of attitude. This scale was labeled, *believing all students can succeed in general education classrooms*. It consisted of statements 1, 2, and 3 in the survey. The second subscale, titled *developing personal and professional relationships*, measured the affective
dimension through items 4, 5, and 6, and the third subscale assessed the behavioral aspect of attitude with items 7, 8, and 9 on the instrument. This subscale was titled creating an accepting environment for all students to learn. Together the three subscales measured an individual’s three elements of attitude.

The reliability analysis for ATTAS-mm full scale and subscales is listed in Table 3.3.

Table 3.3

<table>
<thead>
<tr>
<th>Component</th>
<th>Title</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full scale</td>
<td>Attitudes toward teaching all students</td>
<td>0.833</td>
</tr>
<tr>
<td>Subscale 1: Cognitive</td>
<td>Believing all students can succeed in general education classrooms</td>
<td>0.720</td>
</tr>
<tr>
<td>Subscale 2: Affective</td>
<td>Developing personal and professional relationships</td>
<td>0.928</td>
</tr>
<tr>
<td>Subscale 3: Behavioral</td>
<td>Creating an accepting environment for all students to learn</td>
<td>0.837</td>
</tr>
</tbody>
</table>

Process for the Study

To initiate the current study, the researcher contacted Gregory and Noto for use of their survey. Once permission was granted, IRB approval from St. John’s University and the New York City Department of Education was secured. Once all approvals were obtained, the study was conducted. The researcher provided individual envelopes with an explanation of the study to the principals of the elementary and K-8 schools. The principals signed the explanation form as confirmation that the researcher could elicit responses from the teachers in their schools. The researcher also provided individual envelopes with the consent form and survey to the K-2 teachers. The surveys were in
paper format and included a question to identify whether the teacher was a special education teacher or general education teacher. The teachers had 48 hours to complete the voluntary survey. The teachers returned the surveys to the researcher either by placing them into a manila envelope with the researcher’s name on it in the main office or by giving them directly to the researcher who traveled to each participating school to collect the surveys.

Once the surveys were collected, the responses were entered into a spreadsheet and analyzed using SPSS. Two surveys could not be analyzed, as the question about being a general education teacher or special education teacher was not answered; therefore, the remainder of the survey was not valid. Since the survey was voluntary, and teachers could choose not to answer a question(s), the analysis of the questions and statements varied in number according to the responses from the participants.
Chapter 4

Results

The hypotheses in this study were tested utilizing data from 327 kindergarten through second-grade teachers out of the 462 surveys that were distributed. This was a response rate of 70%.

Results for Research Question 1

Research Question 1: What are the differences between K-2 general education and special education teachers in their cognitive, affective, and behavioral attitudes toward educating students with disabilities?

Hypothesis 1: There will be significant differences between K-2 general education and special education teachers’ cognitive, affective, and behavioral attitudes when educating students with disabilities.

The ATTAS-mm instrument employed measured educator attitudes toward special education and inclusion. It consisted of nine statements with a positive semantic direction. The instrument used a 7-point Likert scale, which was quantified with the most negative response equal to 0 and the most positive response equal to 6. Statements 1-3 measured the cognitive dimension, and SUM-Cognitive was a composite variable obtained by adding the scores of the first three statements. The average or mean score for SUM-Cognitive for general education teachers (M = 6.86, SD = 3.485), was higher than the mean score for special education teachers (M = 6.46, SD = 4.121). This was contrary to what was expected and in contrast to the affective and behavioral dimensions. This was an unexpected finding and will be discussed in Chapter 5.
Table 4.1

*Means and Standard Deviations of the Measure of SUM-Cognitive by Teacher Role*

<table>
<thead>
<tr>
<th>Teacher Role</th>
<th>n</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gen ed</td>
<td>236</td>
<td>6.86</td>
<td>3.485</td>
</tr>
<tr>
<td>Special ed</td>
<td>83</td>
<td>6.46</td>
<td>4.121</td>
</tr>
<tr>
<td>Total</td>
<td>319</td>
<td>6.76</td>
<td>3.695</td>
</tr>
</tbody>
</table>

Table 4.2

*One-Way Analysis of SUM-Cognitive by Teacher Role*

<table>
<thead>
<tr>
<th>Source</th>
<th>Df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>1</td>
<td>9.940</td>
<td>9.940</td>
<td>.742</td>
<td>.390</td>
</tr>
<tr>
<td>Within groups</td>
<td>317</td>
<td>4246.988</td>
<td>13.397</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>318</td>
<td>4256.928</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Figure 4.1. Means Plot SUM-Cognitive by Teacher Role.*

SUM-Affective was a composite variable obtained by adding the scores of statements 4-6 of the ATTAS. Special education teachers yielded higher scores, depicting significantly higher positive attitudes toward special education students and
inclusion in the affective dimension \((M = 13.43, SD = 3.468)\) than general education teachers \((M = 12.18, SD = 2.953)\).

Table 4.3

*Means and Standard Deviations of the Measure of SUM-Affective by Teacher Role*

<table>
<thead>
<tr>
<th>Teacher Role</th>
<th>(n)</th>
<th>(M)</th>
<th>(SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gen ed</td>
<td>233</td>
<td>12.18</td>
<td>2.953</td>
</tr>
<tr>
<td>Special ed</td>
<td>83</td>
<td>13.43</td>
<td>3.468</td>
</tr>
<tr>
<td>Total</td>
<td>316</td>
<td>12.51</td>
<td>3.140</td>
</tr>
</tbody>
</table>

Table 4.4

*One-Way Analysis of SUM-Affective by Teacher Role*

<table>
<thead>
<tr>
<th>Source</th>
<th>(Df)</th>
<th>(SS)</th>
<th>(MS)</th>
<th>(F)</th>
<th>(p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>1</td>
<td>95.499</td>
<td>95.499</td>
<td>9.964</td>
<td>.002</td>
</tr>
<tr>
<td>Within groups</td>
<td>314</td>
<td>3009.450</td>
<td>9.584</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>315</td>
<td>3104.949</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Figure 4.2. Means Plot SUM-Affective by Teacher Role.*
SUM-Behavioral was a composite variable obtained by adding the scores of statements 7-9 of the ATTAS. In the behavioral dimension, special education teachers held significantly higher positive attitudes ($M = 14.91$, $SD = 2.603$) than general education teachers ($M = 13.40.47$, $SD = 2.642$).

Table 4.5

*Means and Standard Deviations of the Measure of SUM-Behavioral by Teacher Role*

<table>
<thead>
<tr>
<th>Teacher Role</th>
<th>$n$</th>
<th>$M$</th>
<th>$SD$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gen ed</td>
<td>236</td>
<td>13.40</td>
<td>2.642</td>
</tr>
<tr>
<td>Special ed</td>
<td>85</td>
<td>14.91</td>
<td>3.603</td>
</tr>
<tr>
<td>Total</td>
<td>321</td>
<td>13.80</td>
<td>2.711</td>
</tr>
</tbody>
</table>

Table 4.6

*One-Way Analysis of SUM-Behavioral by Teacher Role*

<table>
<thead>
<tr>
<th>Source</th>
<th>$Df$</th>
<th>SS</th>
<th>$MS$</th>
<th>$F$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>1</td>
<td>142.032</td>
<td>142.032</td>
<td>20.503</td>
<td>.000</td>
</tr>
<tr>
<td>Within groups</td>
<td>319</td>
<td>2209.806</td>
<td>6.927</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>320</td>
<td>2351.838</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SUM-Total was a composite variable obtained by adding the scores of all statements 1-9 of the ATTAS. This test was conducted to get the data as a total of all of the dimensions. In the combination of the all dimensions, special education teachers held higher positive attitudes ($M = 34.88$, $SD = 8.330$) than general education teachers ($M = 32.37$, $SD = 7.092$).

Table 4.7

<table>
<thead>
<tr>
<th>Teacher Role</th>
<th>$n$</th>
<th>$M$</th>
<th>$SD$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gen ed</td>
<td>225</td>
<td>32.37</td>
<td>7.092</td>
</tr>
<tr>
<td>Special ed</td>
<td>81</td>
<td>34.88</td>
<td>8.330</td>
</tr>
</tbody>
</table>
Table 4.8

One-Way Analysis of SUM-Total by Teacher Role

<table>
<thead>
<tr>
<th>Source</th>
<th>Df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>1</td>
<td>373.199</td>
<td>373.199</td>
<td>6.746</td>
<td>.010</td>
</tr>
<tr>
<td>Within groups</td>
<td>304</td>
<td>16817.405</td>
<td>55.320</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>305</td>
<td>17190.605</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The difference of mean scores by teaching role was not statistically significant for the cognitive dimension (SUM-Cognitive). When an independent samples t-test was performed with teaching role and the affective dimension (SUM-Affective) and the behavioral dimension (SUM-Behavioral), there was a positive correlation with significance at .002 and .000, respectively. There was also a positive correlation with significance between teaching role and all the dimensions (SUM-Total) at .010.

Table 4.9

Results for the t-test for Equality of Means

<table>
<thead>
<tr>
<th></th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>Std. Error Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUM-Cognitive</td>
<td>.390</td>
<td>.402</td>
<td>.467</td>
</tr>
<tr>
<td>SUM-Affective</td>
<td>.002</td>
<td>-1.249</td>
<td>.396</td>
</tr>
<tr>
<td>SUM-Behavioral</td>
<td>.000</td>
<td>-1.508</td>
<td>.333</td>
</tr>
<tr>
<td>SUM-Total</td>
<td>.010</td>
<td>-2.503</td>
<td>.964</td>
</tr>
</tbody>
</table>

Results for Research Question 2

Research Question 2: To what extent does the number of years teaching in an inclusive environment affect teacher attitudes toward students with disabilities?

Hypothesis 2: The number of years of teaching in an inclusive environment will affect teacher attitudes toward students with disabilities.

The factor of special education/inclusive experience was not significant in the cognitive dimension; however, there was statistical significance ($p < .01$) in the affective
dimension \((p < .01)\); in the behavioral dimension; and a weaker, yet positive significance \((p < .05)\) in the sum total of all three dimensions.

Table 4.10

*Correlation Between SE Experience and Dimensions*

<table>
<thead>
<tr>
<th>Survey Item</th>
<th>R</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUM-Cognitive</td>
<td>-.058</td>
<td>.317</td>
</tr>
<tr>
<td>SUM-Affective</td>
<td>.150</td>
<td>.009**</td>
</tr>
<tr>
<td>SUM-Behavioral</td>
<td>.259</td>
<td>.000**</td>
</tr>
<tr>
<td>SUM-Total</td>
<td>.135</td>
<td>.021*</td>
</tr>
</tbody>
</table>

**significant at the .01 level
*significant at the .05 level

**Results for Research Question 3**

Research Question 3: What factors will positively influence the attitude of the general education teacher and the special education teacher?

Hypothesis 3: Increasing the amount of professional learning on strategies for teaching special education students will have a positive effect on the attitudes of teachers toward the students with disabilities in their classes.

In order to better understand what type of professional learning experiences needed to be provided to teachers, the factors of degree, number of special education courses, years of special education experience and general education teaching experience only were considered. For each factor subscale, a correlation was administered. When each factor was investigated individually, significant correlations were found for the number of special education courses taken; experience in working with special education students; and a negative, but significant relationship with years of experience in teaching.
With regard to the degree attained, there was statistical significance \((p < .01)\) only in the affective dimension. The degree attained was not statistically significant in any other dimension or combination of dimensions.

Table 4.11

*Correlation Between Degree and Dimensions*

<table>
<thead>
<tr>
<th>Survey Item</th>
<th>R</th>
<th>(p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUM-Cognitive</td>
<td>.010</td>
<td>.857</td>
</tr>
<tr>
<td>SUM-Affective</td>
<td>-.194</td>
<td>.001**</td>
</tr>
<tr>
<td>SUM-Behavioral</td>
<td>-.194</td>
<td>.741</td>
</tr>
<tr>
<td>SUM-Total</td>
<td>-.090</td>
<td>.116</td>
</tr>
</tbody>
</table>

**significant at the .01 level

The number of special education courses taken was significant in the affective dimension at \(p = .003\), the behavioral dimension at \(p = .000\), and the sum total of all three dimensions (cognitive, affective, and behavioral) at \(p = .001\). This factor was not significant in the cognitive level only at \(p = .857\).

Table 4.12

*Correlation Between SE Courses and Dimensions*

<table>
<thead>
<tr>
<th>Survey Item</th>
<th>R</th>
<th>(p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUM-Cognitive</td>
<td>.045</td>
<td>.433</td>
</tr>
<tr>
<td>SUM-Affective</td>
<td>-.167</td>
<td>.003**</td>
</tr>
<tr>
<td>SUM-Behavioral</td>
<td>-.228</td>
<td>.000**</td>
</tr>
<tr>
<td>SUM-Total</td>
<td>-.198</td>
<td>.001**</td>
</tr>
</tbody>
</table>

**significant at the .01 level

The correlation of the factor of special education experience was not significant in the cognitive dimension; however, it was highly significant in the affective dimension at \(p = .009\), the behavioral dimension at \(p = .000\), and the sum total of all three dimensions at \(p = .021\) (correlation is significant at the \(p < 0.05\) level).
Table 4.13

**Correlation Between SE Experience and Dimensions**

<table>
<thead>
<tr>
<th>Survey Item</th>
<th>R</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUM-Cognitive</td>
<td>-.058</td>
<td>.317</td>
</tr>
<tr>
<td>SUM-Affective</td>
<td>.150</td>
<td>.009**</td>
</tr>
<tr>
<td>SUM-Behavioral</td>
<td>.259</td>
<td>.000**</td>
</tr>
<tr>
<td>SUM-Total</td>
<td>.135</td>
<td>.021*</td>
</tr>
</tbody>
</table>

**significant at the .01 level
*significant at the .05 level

The correlation of the factor of overall teaching experience was not significant in the cognitive dimension; however, it had a significant negative relationship with all dimensions and with the combinations of dimensions. This factor also had a significant, negative relationship and was highly significant in the affective dimension at \( p = .000 \), the behavioral dimension at \( p = .013 \) \( (p < .05 \) level), and the sum total of all three dimensions at \( p = .000 \). When all factors were analyzed together, overall teaching experience had a negative relationship and was statistically significant.

Table 4.14

**Correlation Between Years of Experience and Dimensions**

<table>
<thead>
<tr>
<th>Survey Item</th>
<th>R</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUM-Cognitive</td>
<td>-.044</td>
<td>-.443</td>
</tr>
<tr>
<td>SUM-Affective</td>
<td>-.345</td>
<td>.000**</td>
</tr>
<tr>
<td>SUM-Behavioral</td>
<td>-.142</td>
<td>.013*</td>
</tr>
<tr>
<td>SUM-Total</td>
<td>-.221</td>
<td>.000**</td>
</tr>
</tbody>
</table>

**significant at the .01 level
*significant at the .05 level

When a regression was conducted, and the factors were examined together, there was a change in the statistical significance in some of the factors. When the dependent variable was SUM-Cognitive, none of the variables included in any of the models
(teaching role, degree, years of experience, special education courses, special education experience) was statistically significant.

Table 4.15

*Linear Regression Coefficients for SUM-Cognitive by Predictor*

<table>
<thead>
<tr>
<th>Model</th>
<th></th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>6.821</td>
<td>.245</td>
<td>27.840</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Teaching Role</td>
<td>-.283</td>
<td>.477</td>
<td>-.034</td>
<td>-.594</td>
</tr>
<tr>
<td>2</td>
<td>(Constant)</td>
<td>6.742</td>
<td>.617</td>
<td>10.931</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Teaching Role</td>
<td>-.275</td>
<td>.481</td>
<td>-.033</td>
<td>-.572</td>
</tr>
<tr>
<td></td>
<td>Degree</td>
<td>.050</td>
<td>.359</td>
<td>.008</td>
<td>.140</td>
</tr>
<tr>
<td>3</td>
<td>(Constant)</td>
<td>6.920</td>
<td>.633</td>
<td>10.923</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Teaching Role</td>
<td>-.436</td>
<td>.499</td>
<td>-.053</td>
<td>-.875</td>
</tr>
<tr>
<td></td>
<td>Degree</td>
<td>.280</td>
<td>.406</td>
<td>.045</td>
<td>.690</td>
</tr>
<tr>
<td></td>
<td>Years of Experience</td>
<td>-.207</td>
<td>.171</td>
<td>-.083</td>
<td>-1.213</td>
</tr>
<tr>
<td>4</td>
<td>(Constant)</td>
<td>6.492</td>
<td>.749</td>
<td>8.667</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Teaching Role</td>
<td>-.734</td>
<td>.571</td>
<td>-.089</td>
<td>-1.285</td>
</tr>
<tr>
<td></td>
<td>Degree</td>
<td>.257</td>
<td>.407</td>
<td>.042</td>
<td>.633</td>
</tr>
<tr>
<td></td>
<td>Years of Experience</td>
<td>-.181</td>
<td>.172</td>
<td>-.072</td>
<td>-1.051</td>
</tr>
<tr>
<td></td>
<td>SE Courses</td>
<td>.366</td>
<td>.343</td>
<td>.073</td>
<td>1.068</td>
</tr>
<tr>
<td>5</td>
<td>(Constant)</td>
<td>6.741</td>
<td>.806</td>
<td>8.365</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Teaching Role</td>
<td>-.545</td>
<td>.614</td>
<td>-.066</td>
<td>-1.988</td>
</tr>
<tr>
<td></td>
<td>Degree</td>
<td>.249</td>
<td>.407</td>
<td>.040</td>
<td>.612</td>
</tr>
<tr>
<td></td>
<td>Years of Experience</td>
<td>-.176</td>
<td>.172</td>
<td>-.070</td>
<td>-1.020</td>
</tr>
<tr>
<td></td>
<td>SE Courses</td>
<td>.398</td>
<td>.345</td>
<td>.079</td>
<td>1.153</td>
</tr>
<tr>
<td></td>
<td>SE Experience</td>
<td>-.176</td>
<td>.209</td>
<td>-.055</td>
<td>-1.840</td>
</tr>
</tbody>
</table>

*Note.* Dependent Variable: SUM-Cognitive

When the dependent variable was SUM-Affective, teaching role had a small positive relationship ($\beta = .171$) with the score of SUM-Affective. It was statistically significant ($p = .003$) in Model 1. In Model 2, teaching role had a smaller positive relationship ($\beta = .148$) and was statistically significant ($p = .009$). Degree had a negative relationship with SUM-Affective ($\beta = -.188$) and was statistically significant ($p = .001$).
In Model 3, teaching role and degree were no longer statistically significant. There was a negative relationship between years of experience and SUM-Affective ($\beta = -0.297$) and years of experience was statistically significant ($p = .000$). In Models 4 and 5, only years of experience had a statistically significant negative relationship with SUM-Affective ($p = .000$).

Table 4.16

*Linear Regression Coefficients for SUM-Affective by Predictor*

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>12.154</td>
<td>0.210</td>
<td>57.861</td>
</tr>
<tr>
<td></td>
<td>Teaching Role</td>
<td>1.221</td>
<td>0.407</td>
<td>0.171</td>
</tr>
<tr>
<td>2</td>
<td>(Constant)</td>
<td>13.736</td>
<td>0.519</td>
<td>26.490</td>
</tr>
<tr>
<td></td>
<td>Teaching Role</td>
<td>1.058</td>
<td>0.404</td>
<td>0.148</td>
</tr>
<tr>
<td></td>
<td>Degree</td>
<td>-1.005</td>
<td>0.302</td>
<td>-0.188</td>
</tr>
<tr>
<td>3</td>
<td>(Constant)</td>
<td>14.281</td>
<td>0.515</td>
<td>27.749</td>
</tr>
<tr>
<td></td>
<td>Teaching Role</td>
<td>0.577</td>
<td>0.404</td>
<td>0.081</td>
</tr>
<tr>
<td></td>
<td>Degree</td>
<td>-0.297</td>
<td>0.329</td>
<td>-0.055</td>
</tr>
<tr>
<td></td>
<td>Years of Experience</td>
<td>-0.645</td>
<td>0.138</td>
<td>-0.297</td>
</tr>
<tr>
<td>4</td>
<td>(Constant)</td>
<td>13.949</td>
<td>0.608</td>
<td>22.931</td>
</tr>
<tr>
<td></td>
<td>Teaching Role</td>
<td>0.344</td>
<td>0.463</td>
<td>0.048</td>
</tr>
<tr>
<td></td>
<td>Degree</td>
<td>-0.314</td>
<td>0.329</td>
<td>-0.059</td>
</tr>
<tr>
<td></td>
<td>Years of Experience</td>
<td>-0.626</td>
<td>0.139</td>
<td>-0.289</td>
</tr>
<tr>
<td></td>
<td>SE Courses</td>
<td>0.286</td>
<td>0.279</td>
<td>0.066</td>
</tr>
<tr>
<td>5</td>
<td>(Constant)</td>
<td>13.557</td>
<td>0.652</td>
<td>20.807</td>
</tr>
<tr>
<td></td>
<td>Teaching Role</td>
<td>0.047</td>
<td>0.496</td>
<td>0.007</td>
</tr>
<tr>
<td></td>
<td>Degree</td>
<td>-0.298</td>
<td>0.329</td>
<td>-0.056</td>
</tr>
<tr>
<td></td>
<td>Years of Experience</td>
<td>-0.637</td>
<td>0.139</td>
<td>-0.294</td>
</tr>
<tr>
<td></td>
<td>SE Courses</td>
<td>0.234</td>
<td>0.280</td>
<td>0.054</td>
</tr>
<tr>
<td></td>
<td>SE Experience</td>
<td>0.279</td>
<td>0.170</td>
<td>0.101</td>
</tr>
</tbody>
</table>

*Note.* Dependent Variable: SUM-Affective
When the dependent variable was SUM-Behavioral, teaching role had a small positive relationship ($\beta = .225$) with the score of SUM-Behavioral. It was statistically significant ($p = .000$) in Model 1. In Model 2, teaching role had the same positive relationship ($\beta = .225$) and was statistically significant ($p = .000$). Degree had a negative relationship with SUM-Behavioral ($\beta = -.003$) and was not statistically significant ($p = .962$). In Model 3, teaching role had a small positive relationship with SUM-Behavioral ($\beta = .197$) and was statistically significant ($p = .001$). Degree was no longer statistically significant. There was a negative relationship between years of experience and SUM-Behavioral ($\beta = -.113$) and years of experience was not statistically significant ($p = .088$). In Model 4, only number of special education courses had a positive relationship with SUM-Behavioral ($\beta = .135$) and was statistically significant ($p = .044$). In Model 5, only years of special education experience had a statistically significant relationship with SUM-Behavioral ($p = .003$).
Table 4.17

Linear Regression Coefficients for SUM-Behavioral by Predictor

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>13.435</td>
<td>.177</td>
<td>76.033</td>
</tr>
<tr>
<td></td>
<td>Teaching Role</td>
<td>1.370</td>
<td>.341</td>
<td>.225</td>
</tr>
<tr>
<td>2</td>
<td>(Constant)</td>
<td>13.454</td>
<td>.445</td>
<td>30.238</td>
</tr>
<tr>
<td></td>
<td>Teaching Role</td>
<td>1.368</td>
<td>.344</td>
<td>.225</td>
</tr>
<tr>
<td></td>
<td>Degree</td>
<td>-.012</td>
<td>.259</td>
<td>-.003</td>
</tr>
<tr>
<td>3</td>
<td>(Constant)</td>
<td>13.643</td>
<td>.457</td>
<td>29.852</td>
</tr>
<tr>
<td></td>
<td>Teaching Role</td>
<td>1.199</td>
<td>.356</td>
<td>.197</td>
</tr>
<tr>
<td></td>
<td>Degree</td>
<td>.215</td>
<td>.290</td>
<td>.047</td>
</tr>
<tr>
<td></td>
<td>Years of Experience</td>
<td>-.209</td>
<td>.122</td>
<td>-.113</td>
</tr>
<tr>
<td>4</td>
<td>(Constant)</td>
<td>13.069</td>
<td>.536</td>
<td>24.396</td>
</tr>
<tr>
<td></td>
<td>Teaching Role</td>
<td>.785</td>
<td>.409</td>
<td>.129</td>
</tr>
<tr>
<td></td>
<td>Degree</td>
<td>.190</td>
<td>.289</td>
<td>.041</td>
</tr>
<tr>
<td></td>
<td>Years of Experience</td>
<td>-.179</td>
<td>.122</td>
<td>-.097</td>
</tr>
<tr>
<td></td>
<td>SE Courses</td>
<td>.500</td>
<td>.247</td>
<td>.135</td>
</tr>
<tr>
<td>5</td>
<td>(Constant)</td>
<td>12.447</td>
<td>.567</td>
<td>21.941</td>
</tr>
<tr>
<td></td>
<td>Teaching Role</td>
<td>.290</td>
<td>.436</td>
<td>.048</td>
</tr>
<tr>
<td></td>
<td>Degree</td>
<td>.216</td>
<td>.285</td>
<td>.047</td>
</tr>
<tr>
<td></td>
<td>Years of Experience</td>
<td>-.200</td>
<td>.121</td>
<td>-.108</td>
</tr>
<tr>
<td></td>
<td>SE Courses</td>
<td>.422</td>
<td>.245</td>
<td>.114</td>
</tr>
<tr>
<td></td>
<td>SE Experience</td>
<td>.447</td>
<td>.148</td>
<td>.189</td>
</tr>
</tbody>
</table>

Note: Dependent Variable: SUM-Behavioral

When the dependent variable was SUM-Total, teaching role had a small positive relationship ($\beta = .145$). It was statistically significant ($p = .013$) in Model 1. In Model 2, teaching role had a small positive relationship ($\beta = .135$) and was statistically significant ($P = .022$). Degree had a negative relationship with SUM-Total ($\beta = -.082$) and was not statistically significant ($p = .163$). In Model 3, teaching role and degree were no longer statistically significant. There was a negative relationship between years of experience and SUM-Total ($\beta = -.205$) and years of experience was statistically significant ($p = .003$).
.003). In Model 4, only years of experience had a negative relationship with SUM-Total ($\beta = -.189$) and was statistically significant ($p = .006$). In Model 5, years of experience had a negative relationship ($\beta = -.195$) and was statistically significant with SUM-Total ($p = .004$).

Table 4.18

**Linear Regression Coefficients for SUM-Total by Predictor**

<table>
<thead>
<tr>
<th>Model</th>
<th>Coefficientsa</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>32.333</td>
<td>.511</td>
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<tr>
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<td>2.462</td>
<td>.987</td>
<td>.145</td>
<td>2.494</td>
</tr>
<tr>
<td>2</td>
<td>(Constant)</td>
<td>33.952</td>
<td>1.265</td>
<td></td>
<td>26.833</td>
</tr>
<tr>
<td></td>
<td>Teaching Role</td>
<td>2.290</td>
<td>.993</td>
<td>.135</td>
<td>2.306</td>
</tr>
<tr>
<td></td>
<td>Degree</td>
<td>-1.035</td>
<td>.741</td>
<td>-.082</td>
<td>-1.398</td>
</tr>
<tr>
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<td>34.850</td>
<td>1.282</td>
<td></td>
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</tr>
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<td>.088</td>
<td>1.479</td>
</tr>
<tr>
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<td>Degree</td>
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<td>.826</td>
<td>.011</td>
<td>.169</td>
</tr>
<tr>
<td></td>
<td>Years of Experience</td>
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<td>(Constant)</td>
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<td>1.509</td>
<td></td>
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</tr>
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<td>Teaching Role</td>
<td>.425</td>
<td>1.162</td>
<td>.025</td>
<td>.366</td>
</tr>
<tr>
<td></td>
<td>Degree</td>
<td>.072</td>
<td>.824</td>
<td>.006</td>
<td>.088</td>
</tr>
<tr>
<td></td>
<td>Years of Experience</td>
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<td>.350</td>
<td>-.189</td>
<td>-2.790</td>
</tr>
<tr>
<td></td>
<td>SE Courses</td>
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<td>.697</td>
<td>.126</td>
<td>1.859</td>
</tr>
<tr>
<td>5</td>
<td>(Constant)</td>
<td>32.521</td>
<td>1.623</td>
<td></td>
<td>20.033</td>
</tr>
<tr>
<td></td>
<td>Teaching Role</td>
<td>-.220</td>
<td>1.251</td>
<td>-.013</td>
<td>-.176</td>
</tr>
<tr>
<td></td>
<td>Degree</td>
<td>.106</td>
<td>.823</td>
<td>.008</td>
<td>.129</td>
</tr>
<tr>
<td></td>
<td>Years of Experience</td>
<td>-.003</td>
<td>.350</td>
<td>-.195</td>
<td>-2.869</td>
</tr>
<tr>
<td></td>
<td>SE Courses</td>
<td>1.206</td>
<td>.699</td>
<td>.117</td>
<td>1.724</td>
</tr>
<tr>
<td></td>
<td>SE Experience</td>
<td>.587</td>
<td>.425</td>
<td>.089</td>
<td>1.379</td>
</tr>
</tbody>
</table>

*Note.* Dependent Variable: SUM-Total
Conclusion

The analysis provided evidence that the first hypothesis was partially accepted since there was a significant relationship between teaching role and attitude toward students with special needs in their classrooms in the affective dimension, behavioral dimension, and the total of all the dimensions, but there was no significant relationship between teaching role and the cognitive dimension.

The second hypothesis was also partially accepted. Again, there was no significant relationship between special education/inclusive experience and the cognitive dimension; however, there was statistical significance in the affective dimension; in the behavioral dimension; and a weaker, yet positive significance in the sum total of all three dimensions.

The third hypothesis was also partially accepted. There were no factors that were significant in the cognitive dimension. However, there was significance between the factor of degree and the affective dimension; the factor of special education courses and the affective, behavioral, and total of all of the dimensions; and the factor of special education experience and the affective, behavioral, and total of all of the dimensions. Finally, the factor of teaching experience and the affective, behavioral, and total of all the dimensions had a negative, yet significant relationship.
CHAPTER 5

Discussion

The results of this study have applications in the educational setting. Many studies (Avramidis et al., 2000; Gregory & Noto, 2018; Hernandez, Hueck, and Charley, 2016) established teacher attitude as extremely important when working with students with disabilities. However, previous studies were not conducted with early childhood teachers. This research was conducted to fill this gap. Results of this research were similar to the previous research, and this study is important in the education field as these teachers are instructing students in the first years of their educational careers.

Monsen and Fredrickson (2004) found that teachers with a high level of self-efficacy and positive attitudes toward special education students exerted greater positive influence on students and were less judgmental when it came to students’ mistakes. Conversely, teachers with low self-efficacy motivated students less and were less persistent toward student learning (Khan et al., 2015). Most of the participants in Fuchs’s (2010) study agreed that inclusion was a positive educational placement and that students both with and without disabilities benefitted from being in the same classroom. However, the teachers did not favor inclusion, in its current practices, because they felt unprepared to meet the concomitant demands and responsibilities. Based on these assertions, these teachers presumably are less effective than they could be with regard to special education practices in the general educational setting, suggesting that special education students may not be receiving the level of support they need to be successful in the general education classroom. The current study substantiated these previous studies with the results surfacing that additional special education professional learning
opportunities during the career of the teacher and hands-on experiences with special
education students during college teacher preparation courses is imperative for teachers
to increase their levels of self-efficacy.

**Interpretation of Results**

The results of this study indicated that there was a significant difference in the
attitudes of general education teachers and special education teachers toward special
education students in their classrooms. The relationship between teaching role and the
affective domain and between teaching role and the behavioral domain were statistically
significant. Statements 4-9 evaluated these areas. When statements 4-8 were correlated
with teaching role, they were found to be statistically significant. Conversely, statements
1-3 and statement 9 were not found to be significant. The analysis revealed an
unexpected finding that the responses to statements 1-3, in the cognitive dimension, were
contrary to the responses to statements 4-8, relating to the affective and behavioral
dimensions. Additional analyses should be conducted to understand the disparity. A
possible consideration for this disparity was that statements 1-3 were misinterpreted by
the participants. While the statements were written positively, they may have been
perceived as negatively worded statements, due to the language of the respondent. If
English was not the first language of the respondent, the statements may have been
interpreted as negatively worded rather than positively worded. This concern was
uncovered when the researcher employed the assistance of a data expert whose first
language was not English. As soon as the expert read the statements, it was identified
that the first three statements could be interpreted as negative. Within the New York City
public school system, there are many educators who speak languages other than English.
A possible recommendation for future study would be to substantiate the survey statements with speakers of other languages to determine the validity of the survey statements.

Statement 9 was not significant in terms of teaching role. The responses to the statement: “All students with mild to moderate disabilities should be educated in regular classrooms with non-handicapped peers to the fullest extent possible” suggest that all teachers, general education and special education teachers, maintain that students with disabilities should be educated with non-handicapped peers to the greatest extent possible, but not necessarily in their classroom. This is corroborated by research conducted by Kavale and Forness (2000), indicating that general education teachers had expressed some negative attitudes, especially feelings of inadequacy in teaching students with disabilities, although they remained somewhat positive about the concept of integration. Additional research showed that teachers had positive attitudes toward the concept of inclusion, but less positive attitudes when it came to providing instruction to these students (Hernandez et al., 2016).

Teaching role was significant in the statements relating to the affective and behavioral dimensions. It was not significant in the cognitive dimension. Results indicate that special education teachers were significantly more positive toward special education students than were general education teachers. Previous research by Hwang and Evans (2011) found that teachers believed in including students with disabilities in the general education setting but suggested that they were not equipped to handle this type of student. A number of research studies have confirmed the fact that teachers do not feel prepared to work with students with special needs (Arrah & Swain, 2014; Fuchs,
This finding corroborated the study conducted by Hernandez et al. (2016), whose results indicated that special education teachers’ attitudes toward inclusion were more positive than those of general education teachers. In addition, special education experience and self-efficacy were predictors of teachers’ attitudes toward inclusion. According to Hernandez et al. (2016), “Change in practice may be achieved if school district administrators implement teacher training to improve teacher self-efficacy regarding inclusive practices, which could ultimately improve student outcomes and narrow the achievement gap.”

**Relationship Between Results and Prior Research**

The first hypothesis, “There are differences between special education teachers’ and general education teachers’ cognitive, affective, and behavioral attitudes when educating students with disabilities,” was substantiated. While there was no significance in the cognitive dimension, special education teachers’ attitudes were significantly more positive in the affective and behavioral dimensions and in the total of all dimensions than were general education teachers’ attitudes. Even when special education teachers collaborated and taught alongside the general education teachers when students with disabilities were in the class, as in an ICT class, general education teachers felt they did not have the self-efficacy to teach special education students.

Self-efficacy and attitudes have been reported to be intertwined in prior research. If the teacher had low self-efficacy in teaching students with disabilities, then the attitude toward the special education student was more negative or indifferent (Cook, 2001; Vaz et al., 2015). According to De Neve et al. (2014), if a teacher had low self-efficacy when it came to working with students with disabilities, they would have a more difficult time
teaching these students and would find reasons why they could not educate them. Teachers who felt they needed additional training in special education techniques had low self-efficacy.

The relationship between cognitive dimension and teacher role was not significant. There are alternate explanations for this statistic, and they should be analyzed in a future study. The results of the ANOVA presented a greater positive relationship between special education teachers and the affective dimension, behavioral dimension, and the sum of all of the dimensions.

The second hypothesis, “The number of years of teaching in an inclusive environment will affect teacher attitudes toward students with disabilities,” was statistically significant. In all dimensions, except for cognitive, years of special education experience was the greatest predictor of teacher attitude. When all of the factors were combined in the analysis, the amount of special education teaching experience continued to be highly significant.

This finding was in alignment with the study by De Boer, Pijl, and Minnaert (2011), who posited that teachers with inclusion experience held significantly more positive attitudes toward inclusive education than did teachers with little or no experience. Kruglanski et al. (2015) concurred with Kraus (1990) that direct experience with the object was a strong construct that would predict behavior.

The third research question asked: “What factors positively or negatively influence the attitude of the general education teacher and the special education teacher?” The results of this research found that the number of years of experience, special education courses, and special education experience were highly significant in the
affective and behavioral attitude dimensions and total of all dimensions. These data provided evidence for the efficacy of additional professional learning experiences with students with disabilities and collaboration with special education licensed colleagues.

The number of years of experience, however, had a negative relationship with the dimensions of attitude. Consequently, the longer the teacher was teaching, without the hands-on experience of teaching students with special needs, the less positive the attitude toward special education students. This outcome highlighted the issue of the necessity of hands-on experience with students with special needs. Teachers who do not work with special education students or do not have professional development opportunities in strategies to work with students who learn differently continue to have low self-efficacy when it comes to teaching students with special needs.

As Cook et al. (2007) found in their study, general education teachers had increased levels of concern, indifference, rejection, and significantly lower attachment ratings with students who had learning disabilities. Several studies have substantiated Cook’s results. Kruglanski et al. (2015) stated that direct personal experience with an object was one of the most important indicators of the attitude-behavior relationship. Kruglanski also cited Allport’s 1935 study, which found that direct personal experience with an object was one of the most important indicators of the attitude-behavior relationship.

The significance of the amount of experience teaching students with disabilities was one of the greatest predictors. If general education teachers had additional hands-on experience with students with special needs, they had a more positive attitude toward these students. Vaz et al. (2015) found that professional learning appeared to be a key
factor that influenced teachers’ ability to change teaching practices. In addition, teachers who had training in teaching students with special needs, attributed to positive attitudes toward inclusion. Additionally, the study by Shippen et al. (2005) indicated that hands-on experience increased the teacher’s self-efficacy.

The significance in the number of special education courses taken by teachers highlights the need for professional development in the area of special education. The findings from the analysis indicate that if teachers had courses in special education, whether in college or during their teaching career, they had more positive attitudes toward students with disabilities. However, the professional development opportunities had to be courses, or a series of professional learning experiences, and not just workshops. This finding was consistent with the research of Shippen et al. (2005) and Arrah and Swain (2014). Special education courses that included strategies to support the struggling student assisted in the self-efficacy of the teachers and increased their level of confidence when working with students with disabilities. Teachers’ self-efficacy can influence students’ achievement in several ways. Teachers with high self-efficacy are more likely to implement innovations in the classroom and to use classroom management approaches and adequate teaching methods that encourage students’ autonomy than are teachers with a low sense of self-efficacy (Caprara et al., 2006).

**Limitations**

There were a number of limitations to this study. The first limitation in this study was the unexpected finding that all factors, when analyzed within the cognitive dimension had no significance. Additional analyses should be conducted for an
understanding of these results, including research on the subgroup of teachers who speak English as a second language.

This quantitative study alone was another limitation. In order to acquire richer information on the attitudes of teachers, a qualitative study should be performed in conjunction with the quantitative study. Qualitative questions would extract hidden biases teachers may have, and listening directly to teachers about their attitudes would have a greater impact on the study.

Another limitation was the number of participants. The return rate of the surveys was 70%. As this was a small sample, a focused effort was placed on getting the surveys returned. While 70% is a high percentage of return, if there were a larger number of participants, the number of returns may have been greater and the results may have differed.

An additional limitation was the district and grade levels in which the study was conducted. The study was conducted in an urban district in New York City and with teachers in kindergarten, first grade, and second grade. The results may have been different if the study had been conducted in a suburban or rural district. Additionally, teachers in other grades should be surveyed to ascertain if the attitudes of general education teachers and special education teachers would be comparable as the study verified when the students advance in grade level. According to Lopes et al. (2004), teachers’ sense of efficacy diminished as difficult students grew older. Lopes et al. stated:

the regular responses do not show a clear divide between regular and special education teachers' attitudes and perceptions. The division is clearer between
primary and secondary teachers irrespective of regular or special education status, with the latter expressing more negative feelings toward teaching difficult students. (p. 394)

One final limitation was surveying teachers regarding their attitudes about their students with disabilities in their classrooms only and not including specific prompts about students of color with disabilities. Teacher attitudes toward their students of color is an extremely important and present consideration in today’s society and should be examined, particularly since many of the students with special needs are minority students. The inclusion of this information would enrich the results of the current research.

**Implications for Future Practice and Research**

Results of this study demonstrated that the kindergarten through second grade, general education teachers in the schools of this particular district had less positive attitudes than special education teachers in the affective and behavioral dimensions and in the total of all the dimensions. General education teachers, however, scored higher in the cognitive dimension, indicating that all students should be able to learn in a general education setting. Additional research about the attitudes of general education teachers will need to be conducted to identify the varied results between the cognitive dimension and the other dimensions.

Self-efficacy is possibly a reason why the general education teachers’ responses were less positive than the responses of special education teachers. This study confirmed prior research in this area. Monsen and Fredrickson (2004) found that teachers with a high level of self-efficacy and positive attitudes toward special education students exerted
greater positive influence on students and were less judgmental when it came to students’ mistakes. Conversely, teachers with low self-efficacy motivated students less and were less persistent toward student learning (Khan et al., 2015).

Results of this study can be used in teacher preparation programs as well as in professional development courses and series for schools and school districts. Short and Martin (2005) stated that teachers’ attitudes toward the inclusion of students with special needs positively or negatively affected the student-teacher relationship and ultimately the success of the students. Specifically, the teachers must be prepared to teach students with special needs. Avramidis et al. (2000) reinforced the importance of training. Teacher attitudes toward special education students can be transformed to a more positive perspective through education, professional development, and hands-on experience. This study demonstrated that the number of special education courses and special education experience had a positive relationship with the attitudes of teachers. The negative, but statistically significant relationship between teaching experience and teacher’s attitudes demonstrated the need for hands-on teaching experiences. College teacher education programs should include both additional courses that encompass strategies to teach students with special needs and student teaching in special education settings for all teachers, general education as well as special education teachers. Shippen et al. (2005) noted that field experience should be included into the exceptionalities class coursework. Preservice teachers would then be able to have hands-on experience with students with special needs in the classroom and would have a veteran, licensed teacher to guide them.

Additionally, schools and district offices should design professional development experiences and courses that increase the level of teacher efficacy when teaching special
education students. These professional learning experiences should be provided to general and special education teachers, since many students who have not been classified as needing special education services are sitting in general education classrooms as well as students who need the additional support of special education strategies. Administrators can support teachers in becoming more effective with their students with disabilities through additional professional development experiences in co-teaching, collaboration, and the use of inclusive strategies.
Appendix A

Institutional Review Board Approvals

ST. JOHN’S

UNIVERSITY

MEMO

nitopim@stiohns.edu

Institutional Review Board
Federal Wide Assurance: FWA00009066

Date: May 17, 2019

To: Nancy DiMaggio

cc: Dr. Rosalba Del Vecchio
    Dr. Rene Parmar
    Dr. Mary Beth Schaefer

Dr. Raymond DiGiuseppe
Chair, Institutional Review Board
Tel [redacted]@stiohns.edu

Dr. Marie Nitopi
IRB Coordinator
Tel [redacted]

Protocol # Ø519-326 Protocol Title: Teacher Attitudes of Students with Disabilities in their 1<2 Classrooms

Please be advised that your human subject protocol has been reviewed by the IRB and is considered approved/exempt. You are free to begin your project,

Since the proposal is exempt, no further follow-up by the IRB is required, Please notify the IRB of any deviation from your proposal since any change may require IRB review and approval.

Best wishes for successful pursuit of this research.
Ms Nancy Di Maggio

Dear Ms Di Maggio

I am happy to inform you that the New York City Department of Education Institutional Review Board (NYCDOE IRB) has cleared your research proposal, K-2 Teacher Attitudes of Special Education Students in their Classrooms.” The NYCDOE IRB has assigned your study the file number of 2105. Please make certain that all correspondence regarding this project references this number. The Ethics Clearance is for a period of one year:

Clearance Date: November 14, 2019
Expiration Date: November 13, 2020

Members:
Ms Nancy Di Maggio

Responsibilities of Principal Investigators: Please find below a list of responsibilities of Principal Investigators who have DOE IRB clearance.

• Clearance by this office does not guarantee access to any particular school, individual or data. You are responsible for making appropriate contacts and getting the required permissions and consents before initiating your research.
• When requesting permission to conduct research in a school, submit the Principal Permission letter approved with this protocol to the school Principal along with this letter confirming NYC DOE IRB Ethics Clearance. Be sure to use IRBManager- stamped documents only. Each school Principal must sign the Principal Permission Letter. A completed and signed letter for every school included in your research must be attached to this protocol by Amendment once obtained. Principals may also ask you to show them the fingerprinting receipt issued by the NYC Department of Education Office of Personnel Investigations. Be reminded that Principals reserve the right to decline you access to their schools.

All designated personnel conducting research in NYC public schools must be fingerprinted by the NYC Department of Education Office of Personnel Investigations. This rule applies to all school research that involves students and/or staff. The cost of fingerprinting is $135 for each researcher. Only researchers named in this protocol are approved to carry out research procedures. Additional researchers must be cleared by your IRB of record and then added to this protocol by Amendment. No changes to this protocol may be implemented until they are reviewed and approved by your IRB of record and subsequently cleared by the NYC DOE IRB.
• You are responsible for ensuring that the research is conducted in accordance with your research
proposal as cleared by the DOE IRB and for the actions of all research staff named in this protocol. Research staff not designated in this protocol may not undertake any research procedures, including, but not limited to, interactions with study subjects, or analysis of coded or identifiable data.

- You are responsible for informing all participants (e.g., administrators, teachers, parents, and students) that their participation is strictly voluntary and that there are no consequences for non-participation or withdrawal at any time during the study.
- You must use only the study materials associated with this protocol and bearing the IRBManager NYC DOE IRB approval stamp. Stamped documents are available in the Attachments section of this cleared protocol in IRBManager.
- You must provide all research subjects with copies of their signed consent forms; maintain signed consent forms in a secure place for a period of at least three years after study completion; and destroy the consent forms in accordance with the data disposal plan approved by the IRB.
- The DOE IRB may have required changes to the research proposal previously reviewed and approval by your IRB of record. You are required to submit an Amendment or Modification to your IRB of record and obtain approval for all changes required by the DOE IRB, including all changes to study materials. Documentation of approval of these changes by your IRB of record must be submitted to the DOE IRB by Amendment.
- In the event that this research will involve non-English speaking subjects, you are required to translate all study materials to be used with this subject population and submit all translations to the NYC DOE IRB by protocol Amendment for review and clearance prior to use. All translations must be accompanied by attestations of translation accuracy from a qualified translator, or formal certificates of translation by a transcription service.
- You are required to ensure that CITI Human Subjects Research training remains valid for all research personnel designated in this protocol throughout the duration of the protocol clearance period. You must submit updated or renewed CITI training certificates by Amendment before they expire.
- In the event that contracts, external approvals, or other documents are pending at the time of this approval, they must be submitted for NYC DOE IRB review by Amendment once obtained.

**Mandatory Reporting to the IRB:** The Principal Investigator must report to the DOE IRB, within 24 hours, any serious problem, adverse effect, or outcome that occurs with frequency or degree of severity greater than that anticipated. In addition, the Principal Investigator must report any event or series of events that prompt the temporary or permanent suspension of a research project involving human subjects or any deviations from the approved protocol. All reports must be submitted using the IRBManager Protocol Violation, Deviation, Adverse Event, and/or Unanticipated Problem Report form.

**Amendments/Modifications:** All amendments/modification of protocols involving human subjects must have prior IRB approval, except those involving the prevention of immediate harm to a subject, which must be reported within 24 hours to your IRB of record and to the NYC DOE IRB. All amendments/modifications must be reviewed and approved by your IRB of record prior to submission to the NYC DOE IRB.

**Continuation of your research:** It is your responsibility to insure that an application for Continuing Review is submitted 90 days before the expiration date noted above. If you not receive clearance to continue research before the expiration date, all study activities, including, but not limited to, analysis of collected data, must stop until said clearance is obtained.

**Research findings/Study Closures:** The NYC DOE IRB requires a copy of the report of findings from this research. Interim reports may also be requested for multi-year studies. Further, you are required to formally close this protocol by submitting a Study Closure form once all research procedures, including, but not limited to, all analysis of coded or identifiable data, have concluded.

**Data Request:** Note that clearance of this proposed human subjects research does not constitute confirmation of release of data requested in a Data Request form. All data requests are processed and
approved by the Data Request Committee. Please email rpsgresearch@schools.nyc.gov with any questions you may have regarding this matter.

If you have any questions, please contact Marianna Azar at 212.374.3913. Good luck with your research.

Sincerely,

Marianna Azar

Marianna Azar
Director and Chair, Institutional Review Board
Appendix B

Data Collection Instruments

Nancy Di Maggio, Doctoral Student
Administration and Instructional Leadership

Attitudes Towards Teaching All Students

Demographic Information

Directions: The purpose of this introductory page to the survey is to obtain an accurate and valid understanding of the demographics and backgrounds of the individuals completing the survey. Because there are no “right” or “wrong” answers to these items, please respond candidly.

Respondent Information:
1. What is your current role in education?
   - General Education Teacher
   - Special Education Teacher
2. What is your gender?
   - Male
   - Female
3. What is the highest degree you have completed?
   - Bachelors
   - Masters
   - Masters + 30
   - Doctorate
4. How many years of experience do you have as an educator?
   - 0-4 years
   - 5-9 years
   - 10-14 years
   - 15-19 years
5. Which grades have you taught? Check all that apply.
   - Pre-K to 2nd grade
   - 3rd grade to 5th grade
   - 6th grade to 8th grade
   - 9th grade to 12th grade

6. How many college (or higher) courses have you completed in special education?
   - None
   - 1-3
   - 4 or more courses

7. Describe the extent of your experience working with individuals with disabilities in your school.
   - Minimal (1 hour or fewer per month)
   - Some (2-10 hours per month)
   - Considerable (11-80 hours per month)
   - Extensive (more than 80 hours per month)

8. Which of the following best describes the school in which you work?
   - Elementary (k-2, k-5, or k-6)
   - K-8

9. How would you describe the socioeconomic status of the community in which you work/intern?
   - Poor (income/education in the lowest 20%)
   - Moderate (income/education in the middle 60%)
   - Affluent (income/education in the highest 20%)

10. How long do you plan to teach?
    - fewer than 5 years
    - 5-10 years
    - 11-20 years
    - Greater than 20 years

11. I want to become an administrator.
    - yes
    - no

Questions were adapted for this study from: Attitudes Towards Teaching All Students (ATTS-mm)
Survey by Lori A. Noto; University of Bridgeport and Jess L. Gregory; Southern CT State University
Attitudes Towards Teaching All Students

The purpose of this survey is to obtain an accurate and valid appraisal of your perceptions of teaching all students including students identified with mild to moderate disabilities. Because there are no “right” or “wrong” answers to these items, please respond candidly.

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<td></td>
<td>Agree</td>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Neither Agree Nor Disagree</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td>1.</td>
<td>Most or all separate classrooms that exclusively serve students with mild to moderate disabilities should be eliminated.</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<td>5</td>
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<td>2.</td>
<td>Students with mild to moderate disabilities should be taught in regular classes with non-disabled students because they will not require too much of the teacher’s time.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<td>3.</td>
<td>Students with mild to moderate disabilities can be more effectively educated in regular classrooms as opposed to special education classrooms.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<td>4.</td>
<td>I would like to be mentored by a teacher who models effective differentiated instruction.</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<td>5</td>
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<td>5.</td>
<td>I want to emulate teachers who know how to design appropriate academic interventions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<td>6.</td>
<td>I believe including students with mild/moderate disabilities in the regular education classrooms is effective because they can learn the social skills necessary for success.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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7. I would like people to think that I can create a welcoming classroom environment for students with mild to moderate disabilities.

8. Students with mild to moderate disabilities can be trusted with responsibilities in the classroom.

9. All students with mild to moderate disabilities should be educated in regular classrooms with non-handicapped peers to the fullest extent possible.

Copies of instruments (if not copyrighted), questionnaires, and other materials. If appropriate, samples of responses may be included in this appendix, with all identifying information removed to preserve participants' confidentiality.
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doi:10.1371/journal.pone.0137002.


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<td><strong>Name</strong></td>
<td><em>Nancy Di Maggio</em></td>
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<tr>
<td><strong>Baccalaureate Degree</strong></td>
<td><em>Bachelor of Science, Pennsylvania State University</em></td>
</tr>
<tr>
<td></td>
<td><em>University Park, PA</em></td>
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<tr>
<td></td>
<td><em>Major: Special Education/Elementary Education</em></td>
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<td><strong>Date Graduated</strong></td>
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<td><strong>Other Degrees and Certificates</strong></td>
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