


2011

Elementary School Teachers' Attitudes toward Classroom Accommodations: The Effects of Disability and School Type

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Running head: ATTITUDES TOWARD ACCOMMODATIONS

Elementary School Teachers' Attitudes toward Classroom Accommodations: The Effects
of Disability and School Type

A thesis presented by

Sarah Holland

to the Department of Psychology

in partial fulfillment of the requirements

for the degree of Bachelor of Arts

Connecticut College

New London, Connecticut

May 2011

ATTITUDES TOWARD ACCOMMODATIONS

Acknowledgments

The challenge of writing a thesis was a daunting one to say the least. Here I am, a year and a half later, with a finished product, and I feel like someone should pinch me to make sure this is not a dream. The number of wonderful people that have helped me along the way serves as a constant reminder of how important it is to surround yourself with good friends, influential advisors, and a supportive family.

I would like to thank Professor Audrey Zakriski, for her endless understanding, patience, support, and feedback. As my thesis advisor she went above and beyond to help me every step of the way from designing my study to reading, re-reading, and re-reading draft after draft. Without her knowledge and guidance, this study would not be complete.

To my readers, Professor Stuart Vyse and Professor Ann Devlin, I would like to thank you for inspiring me to be the best that I can be. Professor Devlin, as my academic advisor you guided me through my journey here at Connecticut College and always had complete faith in my ability to take on just a little too much. Professor Vyse, you challenged me academically and served as a constant reminder to smile, to pursue my passion, and that statistics is not all that scary.

Friends, thank you for answering my endless questions about “How exactly do I write a thesis?” And also for the hours we logged at the library, the reminder that everything will get done, and for being there at the end of the day. Lastly, to my Mom and Dad, thank you for dealing with my anxious phone calls and for assuring me that the world is not going to end, and that I just had to take a deep breath.

ATTITUDES TOWARD ACCOMMODATIONS

Abstract

The purpose of this study was to compare the attitudes of elementary school teachers toward the inclusion of a student with either a moderate intellectual, physical, or behavioral disability. Participants were from eight different elementary schools; two magnet schools, one charter school, and five public schools from one school district. Participants were provided with a vignette describing one of three disability types and then rated 25 accommodations made for that student. Teachers' attitudes toward these accommodations were measured by the three adapted subscales of the Adaptation Evaluation Instrument (AEI; Schumm & Vaughn, 1991), which addressed how desirable teachers believe each accommodation to be for the student with a disability, how feasible it is to make each accommodation, and how beneficial each accommodation is for students without disabilities in the classroom. Results indicated that disability type did not affect teachers' attitudes toward accommodations; however access to additional resources and general attitudes toward inclusion had moderate effects on teachers' attitudes toward accommodations. Findings also revealed that teachers employed at the magnet or charter schools saw accommodations as significantly more beneficial for students without disabilities than did teachers employed at the traditional public schools.

ATTITUDES TOWARD ACCOMMODATIONS

Table of Contents

Acknowledgements.....	ii
Abstract.....	iii
Table of Contents.....	iv
List of Tables.....	v
List of Figures.....	vi
List of Appendices.....	vii
Introduction.....	1
Method.....	41
Results.....	49
Discussion.....	68
References.....	88
Appendices.....	99

ATTITUDES TOWARD ACCOMMODATIONS

List of Tables

Table 1: <i>Descriptives</i>	50
Table 2: <i>Development of Adaptation Evaluation Instrument Subscales and Items</i>	59
Table 3: <i>Correlations between General Attitudes, Resources, AEI, and Accommodation Subscales</i>	66

ATTITUDES TOWARD ACCOMMODATIONS

List of Figures

Figure 1: <i>The Influence of Teachers' Attitudes toward Inclusion on Accommodation Perceptions</i>	53
Figure 2: <i>The Marginal Influence of Teacher Experience on Perceived Desirability of Accommodations</i>	55
Figure 3: <i>The Influence of School Type on Accommodation Perceptions</i>	56
Figure 4: <i>The Influence of School Type on the Benefits of Making Accommodation Subscales</i>	63

ATTITUDES TOWARD ACCOMMODATIONS

List of Appendices

Appendix A: Consent for Research Participation.....	99
Appendix B: Attitude Inventory – Revised.....	101
Appendix C: Vignette of a Student with a Moderate Intellectual Disability.....	103
Appendix D: Vignette of a Student with a Moderate Physical Disability.....	104
Appendix E: Vignette of a Student with a Moderate Behavioral Disability.....	105
Appendix F: Adaptation Evaluation Instrument.....	106
Appendix G: Demographics Questionnaire.....	113
Appendix H: Debriefing Statement.....	116
Appendix I: Letter of Request Sent to Superintendents, Principals, and Directors.....	117
Appendix J: Sample Email for Directors/Principals to Send Out to Staff Announcing Survey.....	119
Appendix K: Sample Email Sent to Teachers to Launch Survey.....	120
Appendix L: Sample Reminder Email Sent to Teachers.....	121
Appendix M: Sample Thank You Email.....	122

Introduction

As a population, people with disabilities have been practically invisible until the 21st century when attitudes shifted away from exclusion and toward political, social, and educational inclusion. Exclusion is the segregation, or separation, of a group of people from accessing the benefits of mainstream society, whereas inclusion is the establishment of a heterogeneous group in which all members are treated equally and have the same level of access and power within a culture. Historically, people with disabilities have been denied jobs, socially rejected, and publicly ridiculed because of their disability, something that they cannot control and did not choose to have.

In an effort to eradicate people with disabilities from the population, because of their presumed inability to contribute to society, the United States government passed a series of Compulsory Sterilization laws. The purpose of these laws was to prohibit and control the reproductive rights of people with disabilities through the surgical removal or damaging of men's or women's reproductive organs (Berson & Cruz, 2001). The first Compulsory Sterilization law was passed in 1907 in the state of Indiana, with 26 other states quickly following suit. This act became constitutional in 1927 after the Supreme Court case *Buck v. Bell* (1927), where Justice Oliver Holmes famously said, "Three generations of imbeciles are enough." The only legal requirement of this procedure was that patients had to be notified after the operation was completed. Not until 1981 was this movement finally put to an end due to political, societal, and educational reform (Berson & Cruz, 2001).

One of the reasons public attitudes began to change was because of the influx of disabled veterans who returned to the US after World War I; this influx initiated an interest in treatment rather than sterilization and segregation. After World War II, veterans demanded federally funded facilities that supported the treatment of their mental, physical, and emotional disabilities. Rehabilitation and vocational training programs started to develop and became accessible for not only veterans but for all people with disabilities (Anti-Defamation League, 2005). Although the development of training programs was influential in beginning to shift social attitudes, people with disabilities still faced monumental institutionalized discrimination through employment, education, and health care (Burge, Ouellette-Kuntz, & Lysaght, 2007; Jones, McLafferty, Walley, Toland, & Melson, 2008).

It was not until the 1950s that legal reform in the treatment of people with disabilities began to evolve. During this time, the Disabilities Rights Movement took form and demanded equal political, institutional, and social treatment of people with disabilities. Federal legislators took action by passing numerous acts such as the Training of Professional Personnel Act, which guaranteed proper job training for people with disabilities, and the Captioned Films Act, which made films with accessibility features, such as captions, available (Office of Special Education Programs, 2007). In 1973, the Rehabilitation Act was passed, which ensured civil rights for all people with disabilities, including equal access to employment, public services, and buildings. Passing these laws was only a small part of the battle. Implementing the law and reshaping public opinions

about individuals with disabilities was a bigger challenge and is still where change needs to occur more dramatically. In 1990, public attitudes toward people with disabilities were addressed legally in the passage of the Americans with Disabilities Act (ADA), which made it illegal to discriminate against someone because of a disability. People with disabilities of all types finally had the support of the law on their side. ADA granted people with disabilities legal access to public transportation, employment, health care, and education.

International recognition and acknowledgment of the mistreatment of people with disabilities did not occur until 2008, when the United Nations ratified and signed the Convention on the Rights of Persons with Disabilities (Secretariat for the Convention on the Rights of Persons with Disabilities, 2010).

The purpose of the convention is to promote, protect and ensure the full and equal enjoyment of all human rights by persons with disabilities...The convention marks a shift in thinking about disability from a social welfare concern, to a human rights issue, which acknowledges that societal barriers and prejudices are themselves disabling. (United Nations, 2008)

This act was significant in its recognition of the inequalities that operate within our society. Specifically, the convention improved international accessibility in all public domains, increased the legal rights of people with disabilities, and supported government awareness campaigns in an effort to decrease stigma and negative attitudes. While these reforms were significant for influencing social acceptance of people with disabilities,

specific changes had to be made within social institutions for the benefits of these laws to be fully realized by individuals with disabilities. One of the most influential domains where this change occurred in the US was in education (Secretariat for the Convention on the Rights of Persons with Disabilities, 2010).

The Education of Individuals with Disabilities

The equal protection clause under the 14th Amendment to the constitution (1868) ensured that all children with a disability had equal access to a public educational environment. This clause legally mandated that children with disabilities could no longer be segregated or cast out of mainstream society, but rather were entitled to the same educational rights reserved for all US citizens. Although the law initiated the educational reform for people with disabilities, it took until the twentieth century for society to catch up. By the 1960s and 1970s, the impact of educational reforms in the United States, such as Public Law 94-142, or the Individuals with Disabilities Education Improvement Act, could be seen in the social and academic inclusion of many students with disabilities in general education classrooms. Accessible classroom materials were beginning to become available to students; teachers were being educated on the best ways to make classroom accommodations for students with disabilities; and school districts were hiring special education teachers and specialists to support the inclusion of students with disabilities (Office of Special Education Programs, 2007).

In 1975, Public Law 94-142, the Education of All Handicapped Children Act, was passed to ensure that educational equality and inclusion was experienced by all students

with disabilities (Biklen, 1982). Inclusion refers to the establishment of an educational setting where students with and without disabilities learn together, both socially and academically, in an accessible learning environment, namely a general education classroom. Prior to the passing of Public Law 94-142, children with disabilities were placed in mental institutions or state homes where they barely received food, clothing, and shelter let alone an education. Such restrictive settings left children debilitated and dependent. The passage of Public Law 94-142 changed the way students with disabilities were identified, educated, and assessed. Inclusion in the general education classroom can be costly, which is why Public Law 94-142 provides financial benefits for schools to help them comply with the law (Office of Special Education Programs, 2007). Improved access for students with disabilities led to the continuation of educational reform and the strengthening of inclusion and special education support services (Biklen, 1982).

The next influential act was the Individuals with Disabilities Education Improvement Act (IDEA), passed in 1990. This act states that all children with disabilities have the right to receive an education in the least restrictive environment. The term “least restrictive environment” was first introduced in the 1951 Supreme Court case, *Dean Milk v. Madison* (1951) and is defined as the responsibility of the state to educate all children in an educational setting that meets the necessary adaptations of classroom culture and modifications of instruction for students’ unique interests and rights. The decision in this case ensured that children with disabilities would be included in general education classrooms rather than segregated with other students with

disabilities in “special education classes” (Biklen, 1982). IDEA based its decision to enforce the education of children with disabilities in the least restrictive environment on five primary findings: children with disabilities have been systematically denied a public education, all children can benefit from an education, all children are entitled to a free public education under the equal protection clause, parents of children with disabilities have a right to question the educational placement of their children, and children without disabilities are entitled to receive an education in the least restrictive environments.

Challenges to the Successful Implementation of Inclusion

Due to the continued inclusion efforts in schools, negative attitudes surfaced concerning the potentially disadvantageous effects of including students with disabilities in general education classrooms. In response, the effectiveness of teachers’ ability to provide instruction in an inclusive environment was examined (Jordan, Schwartz, & McGhie-Richmond, 2009), and many parents were concerned about the educational quality for the children without disabilities in the classroom (McDonnell, Thorson, McQuivey, & Kiefer-O’Donnell, 1997; Rankin et al., 1999). The qualities of a successful inclusive program were addressed in Waldron and McLeskey’s (2010) research, which identified four main criteria that must be considered when implementing an inclusive program within a school: the use of an interdisciplinary team to identify and meet the unique learning needs of included students, access to an adequate level of resources, professional development, and distribution of leadership and responsibilities across the staff. Outside of the classroom, school administrations have expressed concerns about

academic inclusion as well, especially due to the increased pressures of accountability from the No Child Left Behind legislation, passed in 2002.

The No Child Left Behind legislation mandates that schools are required to meet statewide standards, specifically Adequate Yearly Progress standards (AYP), if they are to continue to receive federal funding. AYP requirements of elementary schools are intended to lessen the achievement gap between students on statewide testing scores, specifically in literacy and numeracy. The goal of the legislation was to have schools start to reassess and redevelop their pedagogical theories of effective teaching. School systems that do not maintain an AYP are considered “failing” and, subsequently, receive less funding from the government. This outcome has led some schools to the inevitable fate of being shut down or taken over by other entities. Inclusion is far from a perfect system however, with increased inclusive curriculums (Bulut, 2005; Bunch & Valeo, 2004; Kemp & Carter, 2000) and positive contact (Barr & Bracchitta, 2008; Siperstein, Parker, Bardon & Widaman, 2007; Waldron & McLeskey, 2010) the additional challenges of meeting AYP standards when students with disabilities are included in the classroom, could be reduced.

Allbritten, Mainzer, and Ziegler (2004) demonstrated that there are many differences between schools that have passed their AYP standard (e.g., adequately closed the gap between students with and without disabilities) and those that have not passed. These differences are due to the number of students with disabilities included in a classroom, the attitudes of teachers and principals toward inclusion, time allotted for

planning between general education teachers and special education teachers, expectations of students with disabilities, availability of inclusive programs across all grade levels, and parental involvement in the creation of an Individualized Education Plan, or IEP. School districts are faced with the challenging reality that inclusion is legally mandated in general education classrooms, however without the proper support (Jordan et al., 2009; Praisner, 2003; Rankin et al., 1999), professional development (Avramidis, Bayliss, & Burden, 2000; Destefano, Shriner & Lloyde, 2001), or curriculum design (Bulut, 2005; Bunch & Valeo, 2004; Kemp & Carter, 2000), inclusion can lead to lower statewide testing scores and in turn cause an increase in the number of failing schools nationwide.

Even when faced with the challenges and obstacles of inclusion, the attitudes of school principals toward inclusion and people with disabilities in general can affect the successful implementation of an inclusive program (Praisner, 2003). School principals who have had positive experiences with students with disabilities are more likely to support education in the least restrictive environments (Praisner, 2003) than are school principals who have had negative or no experiences with students with disabilities. Results from Praisner's (2003) study suggested that, although inclusion was difficult to implement and easier to view negatively than positively, positive interactions can lead to more positive attitudes and greater support for the implementation of inclusion than does the absence of such interactions. This study implied that one of the challenges schools face with the implementation of a successful inclusion program was the attitudes and experiences of school principals.

Social Inclusion. The attitude of both students with and without disabilities toward inclusion also affects the successful implementation of the program, specifically because of the social implications. Peer relations within a classroom have a large impact on the success or failure of an inclusive environment. In a general education classroom where both students with and without disabilities learn together, students without disabilities rated their social interactions more positively compared to their peers with disabilities (Cunningham, Thomas, & Warschausky, 2007; Koster, Timmerman, Nakken, Pijl, & van Houten, 2009; Odom, Zercher, Li, Marquart, Sandall, & Brown, 2006; Waldron & McLeskey, 2010). If students without disabilities reject their peers with disabilities, the benefits of inclusion are lost. Social rejection by peers without disabilities can have detrimental effects on students with disabilities, such as causing them to internalize a negative self-image and to have low self-efficacy (Cooney, Jahoda, Gumley, & Knott, 2006).

Previous research had shown that differences exist in the social networks and quality of friendships between students with and without disabilities, when placed in an inclusive environment (Cunningham et al., 2007; Jastrowski, Berlin, Sato, & Davies, 2007; Kemp & Carter, 2000; Weiserbs & Gottlieb, 2000). Cunningham et al. (2007) showed children with physical disabilities, namely those caused by congenital neurodevelopmental conditions, had a higher percentage of nonrelated adult friends than did children without disabilities, as determined by their scores on the Social Network Inventory for Children-Child Version. A significant difference was also shown in the

quality of friendships, as measured by the Friendship Quality Questionnaire-Revised, where students with a physical disability indicated less validation and caring in their relationships than did peers without a disability (Cunningham et al., 2007).

In addition to differences in social networks and friendships, the attitudes of students without disabilities toward peers with disabilities were a determining factor of the social success of an inclusion program. Factors such as students' awareness of disabilities and previous levels of positive contact with students with disabilities had been shown to affect the perceptions of students without disabilities regarding their peers with disabilities (Favazza, Phillipsen, & Kumar, 2000; Krahe & Altwasser, 2006). An earlier study (Favazza et al., 2000) examined the potential benefits of intervention programs, specifically increased acceptance of peers with disabilities. Sixty-four kindergarten students were divided into four groups: whole intervention, story-time intervention, plays intervention, and the control group. Thirty-two students with disabilities also participated in the study by being integrated into the three intervention groups. Story-time intervention consisted of stories and discussions about children with disabilities. Play intervention consisted of participating in structured play activities with peers with disabilities as well as discussions about people with disabilities. The whole intervention group received both of these interventions, and all three intervention groups had a home component, where once a week students brought home a book about a child with disabilities and read it with someone at home. The control group was positioned in a separate learning environment where they had no access to interactions with people with

disabilities. Results from this study showed that students from the three intervention groups have higher levels of acceptance of their peers with disabilities compared to the control group, and students who received the whole intervention program had the highest levels of acceptance compared to the social and play intervention groups. This study indicated that important factors for the successful implementation of inclusion were the extent of materials about people with disabilities available to students and the level of positive, supported, and structured contact with peers with disabilities (Favazza et al., 2000).

Krahé and Altwasser (2006) conducted a survey that further examined the effects of positive contact on students' attitudes toward people with disabilities. Seventy students in the ninth grade addressed the effects of school-based intervention programs on attitudes toward the inclusion of peers with physical disabilities. Pre- and post-test were conducted on the effects of cognitive and behavioral interventions. One group of participants received cognitive interventions only, which consisted of providing information about the historical treatment of people with physical disabilities, the problematic language associated with the discussion of people with disabilities, and the qualities that define a physical disability. Participants also engaged in discussions about the stereotypical assumptions made about people with physical disabilities. A second group received cognitive interventions as well as behavioral interventions, which included positive, supported contact with peers with physical disabilities. The third group received no intervention. Results from the post-test indicated a significant change

in attitudes toward peers with physical disabilities for the participants that received both interventions compared to the group that received no intervention. This study suggested that increased physical contact with people with disabilities as well as increased awareness about people with disabilities, specifically the stigmatizations attached to having a disability, were related to an increase in positive attitudes toward and the acceptance of inclusion programs (Krahé & Altwasser, 2006).

Another possible ingredient of a successful inclusion program is the use of social skills intervention for students with disabilities. King, Specht, Schultz, Warr-Leeper, Redekop, and Risebrough (1997) had a participant pool of 11 students from an inclusive school with physical disabilities that were recommended for the study because of their socially withdrawn behavior in school. Each participant took part in a social skills training program, called "Joining In," that focused on five basic social skills: interpersonal problem solving, verbal and nonverbal communication, initiating interactions with peers, conversational skills, and coping with difficult others. To practice the skill, participants were instructed on the benefits of having the skill, shown videotaped modeling of the skill, and given the opportunity to practice the skill through role-playing. They were also reminded that the skills would not always work in every situation because they depended on the reactions of the other person. After the intervention, students' progress was assessed using the Global Self-Worth, Social Acceptance, Close Friend Support, Classmate Support, and Loneliness scales. Scores indicated a significant improvement in their perception of their own social acceptance;

however when participants were retested after 6-months, their scores showed that this improvement did not last (King et al., 1997). Although this study had a small sample size and lacked a control group, it suggested that continued instruction in social skills had many benefits for students with disabilities who were interacting with peers without disabilities (King et al., 1997). Explicit instruction in social and emotional interactions is beneficial for all students, not just those with disabilities. Blair's (2002) article addressed preschoolers' school readiness and suggested that preschool programs should expand their curriculum to include social and emotional competence, specifically students' self-regulation and their adaptation to the role of student.

In addition to including explicit instruction of social and emotional interactions, previous research has also suggested differences in the social inclusion of students with disabilities depending on their disability (Koster et al., 2009; Odom et al., 2006). Odom et al. (2006) used a mixed-method design to examine the social acceptance and rejection of preschool children with and without disabilities from 16 inclusive preschool programs. The research design drew upon both qualitative and quantitative methods. Qualitative data came from the development of case summaries for participants based on field notes and interviews, while the quantitative data were retrieved through observational assessment of students using the Code for Active Student Participation and Engagement – Revised. Three themes indicating social acceptance were revealed to code the observed behavior of the children. These themes were students' general awareness and interest in the activities of their peers, communication and pretend play skills, and a third theme

defined by close friendships, positive affect, and social skills. Two themes appeared to code the behavior indicating social rejection, being socially withdrawn (characterized by preferring adult attention, lacking play skills, social isolation, and being disruptive in class) and conveying conflict or aggression (characterized by conflicts with peers, being physically aggressive with peers, and lacking social skills). Analysis of the data revealed that the socially accepted students with disabilities had disabilities that were less likely to negatively affect social problem solving skills and emotional regulation than was true of the less socially accepted students. Results from this study suggested that the type of disability a student has may affect his/her level of social inclusion, as defined by peer acceptance (Odom et al., 2006).

Koster et al. (2009) examined the social inclusion of students by disability type and demonstrated differences in students' social inclusion, as determined by the four subscales of the Social Participation Questionnaire (SPQ), for children with different types of disabilities. Although these differences in social participation were not significant, students with a physical disability, defined as a motor disability in Koster et al.'s (2009) article, had higher mean scores in friendships and relationships, contacts and interactions, and acceptance by classmates on the three corresponding subscales of the SPQ, than did students with an intellectual or behavioral disability. Students with an intellectual disability indicated having more positive social self-perceptions of themselves compared to students with a physical or behavioral disability, as measured by the corresponding subscale of the SPQ. This study suggested that some differences do

exist in the social inclusion of students with disabilities based on the type of disability (Koster et al., 2009).

When social inclusion works well, all students in the class benefit more than do students in segregated classrooms. In a unique study Bunch and Valeo (2004) compared the attitudes, friendship, abusive behavior, advocacy, and acceptance of 31 students from a segregated special education school and 21 students from an inclusive school. In inclusive programs, there was shown to be less abusive behavior and more friendship with peers with disabilities. In terms of advocacy, students in both schools often advocated for their peers with disabilities, however advocacy was more common in inclusive schools. This study demonstrates the social benefits that a successful, well-supported inclusion program can provide for both students with and without disabilities.

Academic Inclusion. Beyond social support, a successful inclusion program must also be academically beneficial for all students in the classroom. Critics of inclusion argue that educating both students with and without disabilities in the same classroom decreases the academic standards for students without disabilities. However, previous research showed that both students with and without disabilities can learn effectively together in the same classroom (Demeris, Childs, & Jordan, 2007; McDonnell et al., 1997; Rankin et al., 1999). Many academic benefits had been shown for students with disabilities in an effective inclusive program compared to students with disabilities in a segregated learning environment, including higher academic scores (Demeris et al.,

2007; Jordan et al., 2009), longer time engaged in learning (Rankin et al., 1999), and better task management (Kemp & Carter, 2000; McDonnell et al., 1997).

Demeris et al. (2007) showed that concerns about negative effects of inclusion on the academic achievement of students without disabilities were unfounded. In this study, a positive correlation was found between the number of students with disabilities in a third grade inclusive classroom and class achievement scores for reading, writing, and mathematics. This relationship suggested that the inclusion of students with disabilities can have a positive impact on the achievement levels of the entire class, including students without disabilities. Rankin et al. (1999) found similar results, that including students with disabilities in small groups did not have a negative effect on the gain scores of the students without disabilities in the small group, based on the scores of pre and post-tests of acquired knowledge from an academic lesson. In Rankin et al.'s (1999) study, grade-specific lesson plans were developed and presented to 12 groups of students: six control groups that each included five students without disabilities, and six experimental groups that each included four students without disabilities and one student with an intellectual disability. The level of impairment of the students with disabilities varied over the groups. Students' understanding of the content was assessed before and after the lesson plan intervention. Scores from the post-tests indicated an overall gain score for the entire group of either the same or higher than the scores from the pre-test in groups that included a student with disabilities 92% of the time. This finding suggested that the inclusion of students with disabilities in a small group learning environment did

not negatively affect the academic achievement of students without disabilities in the same group (Rankin et al., 1999).

Rankin et al.'s (1999) study also showed that teachers providing instruction to an inclusive small group of students were actively engaged with the student(s) with disabilities throughout the lesson plan. Not only did the academic achievement scores of the students in the inclusive group improve, but also the level of engagement and participation of students with disabilities in the group improved when placed with peers without disabilities in the same group. Inclusion that was positively supported through effective classroom management skills (such as establishing small group learning environments) and differentiated instruction had many benefits for both students with and without disabilities, as shown in Rankin et al.'s (1999) study.

The instructional techniques used, have been shown to have an effect on the level of academic engagement of students with disabilities (Kemp & Carter, 2000; McDonnell et al., 1997), suggesting that students with intellectual disabilities demonstrate more on-task behaviors during whole-group instruction compared to independent activities. This result was supported by previous research suggesting that students with disabilities respond more positively in an academic environment that is explicit, organized, predictable, and well supported than in one without those qualities (Brown, Jones, LaRusso, & Aber, 2010; Bulut, 2005; Waldron & McLeskey, 2010).

Attitudes of Teachers toward Inclusion

The attitudes of teachers toward inclusion influences their effectiveness in the classroom, specifically in their instruction and their establishment of a nurturing, high quality learning environment for all students (Brown et al., 2010; Bulut, 2005; Waldron & McLeskey, 2010). Previous research had shown that teachers in an inclusive classroom were more effective in teaching students with and without disabilities when they had positive attitudes toward inclusion than when such attitudes were absent (Avramidis et al., 2000; Barr & Bracchitta, 2008; Cook, 2001; Jordan et al., 2009). Positive attitudes toward inclusion were affected by many variables: the school's applied theory of inclusion; the principal's attitude toward inclusion; a supportive school system for students with disabilities; previous experience in an inclusive classroom; their personal attitudes toward inclusion; and their expression of implicit beliefs as expressed through reflection and discussion (Jordan et al., 2009).

Attitudes toward the education of students with disabilities were related to teachers' epistemological assumptions, attitudes, and beliefs, specifically toward the concepts of ability and disability (Jordan et al., 2009). Two common epistemological theories are the pathognomonic perspective, which interprets knowledge as fixed and unchanging, and the interventionist perspective, which views knowledge as always growing and developing in an individual. Teachers who interpreted knowledge from a pathognomonic perspective were more likely to believe that they cannot be academically effective with students with disabilities than were teachers who held an interventionist

approach. Teachers who viewed knowledge as always growing tended to believe that it was their responsibility to reduce access barriers, use a differentiated curriculum, and work with the interdisciplinary team and the student's parents. Teachers with an interventionist perspective of knowledge were more effective in an inclusive classroom because they believed that ability was malleable, and they favored student-centered instruction and intrinsic motivational techniques (Jordan et al., 2009). Teachers who expressed confidence in their abilities to successfully implement an inclusion program focused on an inclusive curriculum rather than on the perceived conflicts that may arise from including the child (Walker & Nabuzoba, 2007). Further analysis of Walker and Nabuzoba's (2007) results indicated that teachers believed any difficulties students were having with learning in the classroom can be addressed and met through accommodations made to the classroom environment and modifications made to the curriculum.

School districts strive to hire effective teachers, defined in the present study as teachers who can successfully instruct students using a meaningful and purposeful pedagogy that guides them toward becoming life-long, independent learners. Previous research (Jordan et al., 2009) had shown that an effective inclusion curriculum leads to more effective instruction overall, which benefits all students in the classroom, both those with and those without disabilities. The same study showed teachers were effective in a classroom when they have strong time management routines, balance one-on-one instruction with group activities, and elicit a higher order of critical thinking. Teachers' responses to open-ended questions, analyzed through content analysis, indicated that

greater support, resources, training, and time were the main factors needed to make an inclusion program successful (Avramidis et al., 2000). Teachers need access to increased resources and training to be able to know how to successfully include students with disabilities, and they need increased time and support to be able to implement an inclusive curriculum and meet individuals' learning needs.

Previous research had indicated that the level of severity of a disability had also been shown to predict teachers' attitudes toward inclusion and was related to their level of effectiveness in the classroom (Avramidis et al., 2000; Cook, 2001; Hastings & Oakford, 2003). Research had shown that the general public was more accepting of people who have a mild level of impairment than of people who have a moderate or severe level of impairment (Ouellette-Kuntz, Burge, Brown, & Arsenault, 2010). However, Cook's (2004) research concerning the attitudes of elementary school teachers suggested the opposite. When teachers were asked to categorize students into either attachment (i.e., a student the teacher would like to have again the following year), concern (i.e., a student the teacher would like to focus more attention on), indifference (i.e., a student the teacher is less aware of in the classroom), or rejection (i.e., a student the teacher would like to remove from the classroom), students with severe and obvious disabilities were significantly overrepresented in the indifference category, whereas students with mild and hidden disabilities were significantly overrepresented in the rejection category (Cook, 2001). In the discussion of these results, Cook (2001) explained the possibility that when teachers could readily and easily recognize a student's

unique needs due to a disability, they were more likely and willing to make accommodations, because the behaviors were explained, expected, and could be planned for and addressed. Cook (2001) explained that when students have a mild and hidden disability, teachers tended to still hold them to the same expectations of their typically developing peers, therefore causing their behavior to be labeled as disruptive, disturbing, or intolerable, leading to rejection. Experience in an inclusive classroom had been shown to improve the attitudes and confidence levels of teachers toward their ability to instruct in an inclusive academic environment (Avramidis et al., 2000; Barr & Bracchitta, 2008). Thus, it is not surprising that teachers with more experience were more likely to categorize students with disabilities under concern, whereas teachers with less experience tended to categorize students with disabilities under rejection (Cook, 2004).

Type of disability had also been related to educators' attitudes toward inclusion (Hastings & Oakford, 2003). Based on their responses to the Impact of Inclusion Questionnaire, 93 student teachers indicated more negative attitudes toward the inclusion of students with a behavioral or emotional disability compared to the inclusion of students with intellectual disabilities, regardless of participants' previous experience with inclusion and people with disabilities. The measure addressed the effects of inclusion on the students with disabilities themselves, the students without disabilities in the classroom, and the teacher, the school, and the classroom environments. Half of the participants were randomly distributed a questionnaire addressing the inclusion of a student with a behavioral or emotional disability, while half the participants received a

questionnaire addressing the inclusion of a student with an intellectual disability. An examination of the mean scores, of the significant finding, indicated that participants saw inclusion in general, regardless of disability type, to be more beneficial for the student with the disability than for the students without disabilities in the classroom (Hastings & Oakford, 2003).

Many other factors affected teachers' attitudes toward inclusion, such as the level of support they feel from the school system (Jordan et al., 2009; Waldron & McLeskey, 2010), teachers' professional development (Avramidis et al., 2000), awareness and understanding of disabilities (Favazza et al., 2000; Jastrowski et al., 2007; Krahé & Altwasser, 2006), and their gender (Forlin & Hattie, 1996). These factors and others must be understood and addressed to improve elementary school teachers' attitudes toward the successful implementation of an inclusive learning environment.

An effective teacher in an inclusive environment needs to feel supported by the school system, the support services, and the principal (Jordan et al., 2009). Teachers had expressed a desire to have additional support personnel in the classroom if an included student has a severe disability. However, ability level did not make a difference in whether teachers request additional curriculum supports to help with a lack of sufficient time to plan, a lack of adaptive materials, and a lack of accommodating resources (McNally, Cole, & Waugh, 2001). These results may have occurred because, regardless of disability type, it was five times more stressful on teachers to adapt a classroom to

include a student with disabilities than to include a child without disabilities (Forlin & Hattie, 1996).

Previous research had shown gender differences in general attitudes toward inclusion. Women had more positive attitudes toward including people with disabilities than men did (Ahlborn, Panek, & Junger, 2008; Rice, 2009; Royal & Roberts, 1987) in both social and academic environments. Nowicki and Sandieson (2002) showed that women also had more positive attitudes toward girls or women with disabilities than toward boys or men with disabilities. When asked to consider the severity of impairment due to a disability, women gave significantly lower ratings of severity than men did (Royal & Roberts, 1987). In terms of acceptance of people with disabilities, women were more likely to use positive adjectives to describe people with disabilities than men were. This difference suggested that women were more likely than men to view people with disabilities in a positive light (Nowicki, 2006).

Attitudes toward Including Students with Intellectual Disabilities

A person with an intellectual disability was defined in the current study as someone with a cognitive impairment that prevents him or her from functioning at a typical developmental level. The general public had the least amount of contact with people with intellectual disabilities (Nowicki & Sandieson, 2002; Ouellette-Kuntz et al., 2010), and research had shown overall negative attitudes toward people with intellectual disabilities (Ahlborn et al., 2008; Davie & Kemp, 2002; Kemp & Carter, 2000). Elementary school teachers faced with inclusion for the first time believed that including

students in a general education classroom with intellectual disabilities was likely to be difficult or very difficult regardless of the use of additional support services (Forlin & Hattie, 1996; Kemp, 2003). However, in a post-school year interview concerning their attitudes toward inclusion, these same elementary school teachers reported positive attitudes toward inclusion (Kemp, 2003). This result suggested that with increased experience, the level of contact with students with intellectual disabilities and support from the school were related to teachers' more positive attitudes toward inclusion. Waldron and McLeskey's (2010) research indicated that school district support as well as community support was needed in order to successfully implement an inclusive program for students with intellectual disabilities, which implied that inclusion worked best when everyone involved was supportive.

Results of an earlier study (Yazbeck, McVilly, & Parmenter, 2004) demonstrated that a "disability phobia" existed in society toward people with intellectual disabilities. The researchers compared the attitudes of students, disabilities services professionals, and a random sample of the general population. Results indicated that both students and disabilities services professionals had more positive attitudes toward people with intellectual disabilities than did the general public (Yazbeck et al., 2004). This result suggested that attitudes toward people with intellectual disabilities were improved with increased contact in a supported environment, such as an inclusive classroom.

Researchers had also discussed the attitudes of students with intellectual disabilities toward inclusion and segregation. Cooney et al. (2006) researched the

attitudes of students with intellectual disabilities toward the vocational and social implications of having a disability and being included in a general education classroom. Results suggested that people with intellectual disabilities do not internalize a negative self-image due to their awareness of having a disability unless they had a negative experience such as being ridiculed or rejected by peers without disabilities in an inclusive setting (Cooney et al., 2006). These results implied that inclusion needed to be properly supported in order to be socially and academically effective.

Ahlborn et al. (2008) also researched the social rejection of students with intellectual disabilities while attending an inclusive school. Their study demonstrated that students with disabilities attending an inclusive program at a public school experienced more negative stigmatization from peers without disabilities than did students with disabilities while attending a segregated school. Participants with disabilities believed the negative attitudes due to the stigma attached to having a disability were possibly due to unsupportive and unsympathetic teachers. Students with disabilities felt their teachers were the problem because they would not make accommodations for their unique learning needs (Ahlborn et al., 2008). This study suggests that inclusion is the most beneficial to students with and without disabilities when it is fully supported by the teachers.

Kemp and Carter (2002) also researched the social interactions of students with intellectual disabilities and their peers without disabilities. Students with intellectual disabilities were shown to spend significantly less time interacting with their peers

without disabilities on the playground compared to the pattern of students without disabilities, and students with intellectual abilities indicated more feelings of isolation (Kemp & Carter, 2002). However, students with disabilities did not indicate feelings of social rejection. Rather, the study suggested that students were isolated in social environments due to the relationship between the frequency of positive peer interactions and peer likeability. These results implied that supported peer interactions might be an important feature of successful inclusion for children with intellectual disabilities. When included in a general education classroom students with intellectual disabilities are often socially removed from their peers without disabilities. Kemp and Carter (2002) suggested that this social separation occurred because of a lack of contact with peers with intellectual disabilities, which caused peers without disabilities to prefer spending time with other peers without disabilities. Others found that students with intellectual disabilities were socially rejected by peers without disabilities due to the stigma of having a disability and students' general lack of awareness or understanding of intellectual disabilities (Alhborn et al., 2008; Cooney et al., 2006). However, even in an environment where students with intellectual disabilities are socially rejected, students still thrive in unique ways that are not experienced by students with intellectual disabilities in segregated learning environments. Cooney et al. (2006) showed that students with intellectual disabilities in an inclusive academic setting indicated higher aspirations for achieving a professional position, rather than a blue collar profession, compared to students with intellectual disabilities in a segregated school. The benefits of inclusion for

students with intellectual disabilities are clear, and with increased support, such as awareness programs, teacher's attitudes, extent of resources, and increased positive contact, attitudes toward the inclusion of students with intellectual disabilities can be positive and also beneficial for students without disabilities.

Attitudes toward Including Students with Physical Disabilities

People with physical disabilities face a unique challenge because their disability is typically visible. In the current study a person with a physical disability was defined as someone with a bodily impairment that prevents him or her from functioning at a typical developmental level (e.g., having blindness or deafness). A meta-analysis of research on attitudes of students without disabilities toward students with physical disabilities demonstrated that students without disabilities in segregated physical education classrooms held more positive attitudes toward hypothetical inclusion than did students without disabilities in an inclusive physical education classroom (Nowicki & Sandiesin, 2002). These findings suggested that students without disabilities viewed the idea of inclusion positively; however they viewed it less positively when faced with the challenges of actually participating in an inclusive program with students with physical disabilities. These results supported the increased need of awareness programs to supplement inclusion curriculums as well as the need to have supported, well-resourced inclusion programs. The participants in Nowicki and Sandiesin's (2002) study that were in the inclusive physical education classroom may have expressed more negative attitudes toward inclusion because they perceived people with physical disabilities to

have limited competence and as unable to contribute, a view less widely held by those in the non-inclusive physical education classroom. Research had also shown that people had low expectations of the abilities of people with physical disabilities, underestimating their ability to have the skills needed to play on a team, dress themselves, or respond to an emergency situation (Siperstein, Norins, Corbin, & Shriver, 2003).

Previous research (Weiserbs & Gottlieb, 2000) discussed the attitudes of 492 elementary school students toward peers with physical disabilities. Students responded to questions regarding their willingness to befriend peers with a disability and their willingness to help out a peer with a disability. Results indicated that over time, students' attitudes toward friendship improved. Students without disabilities had more positive attitudes toward helping peers with a physical disability than toward befriending them (Weiserbs & Gottlieb, 2000). These results suggested that students with disabilities that were visible, as is typical with physical disabilities, may be viewed as helpless or incapable. The findings of Weiserbs and Gottlieb (2000) were related to the meta-analytic findings of Nowicki and Sandiesin's (2002) study. Both of these studies suggested that students could hold positive attitudes toward including students with physical disabilities, and that attitudes could improve over time, but interactions must be supported, problem solving must be encouraged, and helplessness stigmas must be challenged.

Students with physical disabilities may face unique challenges because of the visibility of their disability. A common occurrence for people with a physical disability is the use of an assistive device, such as a wheelchair or walking stick. Although

attitudes of students with physical disabilities toward classroom accommodations (e.g., the use of assistive devices) vary, overall it had been shown that accommodations benefit students with physical disabilities by making classroom resources more accessible and providing additional support in the learning process (Hutzler, Fliess, Chacham, & Van de Auweele, 2002). This difference in visibility, compared to the situation of students with intellectual or behavioral disabilities, suggested that classroom accommodations also vary. Possibly different types of resources would be needed to make the classroom space more accessible, provide physical supports to accommodate the use of an assistance device, and create awareness programs for students without disabilities to aid in the social acceptance of peers with physical disabilities. In general, students with physical disabilities face similar challenges with social isolation, as do students with other types of disabilities, however this isolation seems more due to an assumed lack of ability rather than to a social distancing due to discomfort.

Attitudes toward Including Students with Behavioral Disabilities

Previous research indicated that teachers' attitudes toward inclusion might be affected by type of disability. Avramidis et al. (2000) showed that including students with emotional disabilities was seen as more difficult and more stressful than was including students with other types of disabilities, possibly due to the disruptive behavior associated with having a behavioral disability. A person with a behavioral disability in this study was defined as someone whose behavior prevents him/her from functioning at a typical developmental level. Common characteristics of students with behavioral

disabilities include conduct problems, aggression, hyperactivity, acting out, and interpersonal issues (Law, Sinclair, & Fraser, 2007; Muscott, 1997; Sherman, Rasmussen, & Baydala, 2008). Previous research (Muscott, 1997) also suggested that students with behavioral disabilities in segregated academic environments had worse maladaptive behavior than did students with behavioral disabilities in supportive inclusion classrooms. These results implied that although students with behavioral disabilities were still disruptive, they were less disruptive when learning alongside peers without disabilities, highlighting the benefits of a successful inclusive program.

Sherman et al. (2008) collected the most recent peer-reviewed publications concerning the influence of teacher factors on the academic and behavioral outcomes of included students with behavioral disabilities, specifically Attention Deficit Hyperactivity Disorder (ADHD). This meta-analysis revealed that teachers' reactions and level of awareness of students' specific disabilities and how students with behavioral disabilities view themselves in relation to their peers affect their academic and social outcomes. Teachers who were more patient, knowledgeable of intervention techniques, supported by an interdisciplinary team, had a positive attitude toward inclusion, and used gestures while communicating had a more positive impact on the social and academic outcomes of students with behavioral disabilities than did teachers who lack such qualities (Sherman et al., 2008). Sherman et al. (2008) suggested further research was needed to examine how intervention programs and other factors, such as family support and access to resources, affected the self-perceptions of students with behavioral disabilities.

Previous research had shown that students with behavioral disabilities had reported experiencing interpersonal difficulties due to attitudes of their peers without disabilities (Avramidis et al., 2000; Haydon, Mancil, & Van Loan, 2009; Law et al., 2007). Jastrowski et al. (2007) explored the impact of preventative disclosure on attitudes toward people with a behavioral disability, specifically ADHD. Preventative disclosure was described as an awareness initiative that involved teachers sharing information with all students in his/her class about behavioral disabilities in an effort to improve social interactions between students with and without a disability. The goal of preventative disclosure was to make the discussion of disability a comfortable conversation topic for both students and teachers, in an effort to make inclusion more effective. The results from this study aligned themselves with other previous research regarding the positive correlation between increased awareness of disabilities and positive attitudes toward students with disabilities (Favazza et al., 2000; Krahé & Altwasser, 2006). Jastrowski et al. (2007) demonstrated that preventative disclosure had a significant effect on the acceptance of people with behavioral disabilities, compared to the acceptance of participants whose peers did not receive preventative disclosure. This greater level of acceptance may have occurred because with increased awareness students were more understanding and tolerant of behavior inconsistent with the norm.

Law et al. (2007) conducted a study that focused specifically on the effects of labeling a child as having a behavioral disability on the perceptions and attitudes of peers without disabilities. One hundred and twenty elementary school students responded to

one of three vignettes regarding their attitudes toward the hypothetical student. The vignettes described a gender-neutral student who exhibited 12 typical characteristics of a child with ADHD, including being inattentive, impulsive, and hyperactive. The first vignette did not give the student a label, whereas the second one labeled the student as having "Attention Deficit Hyperactivity," and the third included the label "Attention Deficit Hyperactivity Disorder." Results indicated no differences in peers' attitudes toward students labeled or not labeled with having ADHD. Although these results were not aligned with previous research regarding an increase in awareness of specific disabilities (Favazza et al., 2000; Jastrowski et al., 2007; Krahe & Altwasser, 2006), the vignettes did not include information regarding what ADHD was or why students behaved differently when they had ADHD, which was included in previous intervention programs. Law et al.'s (2007) results did reveal that students without disabilities described peers with ADHD with consistently negative attributes, such as "careless," "lonely," "crazy," or "stupid." Because these attitudes were shown to be independent of labeling information, this study suggested that negative attitudes toward peers with behavioral disabilities were due to disruptive behavior and not necessarily the label of having a disability. This research also suggested that it takes more than giving a label to educate peers about disability and enhance their positive attitudes.

Attitudes toward the inclusion of students with behavioral disabilities tended to differ from attitudes toward the inclusion of students with physical or intellectual disabilities. This difference seemed related to the increased amount of disruptive

behavior, especially with children with ADHD (Avramidis et al., 2000; Law et al., 2007). Students with intellectual disabilities tended to be more invisible in a classroom, or easily overlooked (Yazbeck et al., 2004). Students with physical disabilities faced a unique experience with stigma because their disabilities were often visible (Hutzler et al., 2002). Peers without disabilities often ignored students with physical disabilities due to perceived lack of ability (Weiserbs & Gottlieb, 2000). Lastly, students with behavioral disabilities often experienced social rejection from peers without disabilities because of perceived disruptive and negative behavior (Haydon et al., 2009). Including students with disabilities presents unique challenges; however with greater extent of resources, support, and awareness, these challenges can become opportunities. Through strong inclusive programs, teachers and students can enhance the learning and social environment to be more accepting of differences and accessible to students from all backgrounds.

Classroom Accommodations

Including students with disabilities in a classroom, regardless of impairment, requires classroom accommodations. When accommodations are made successfully, inclusion becomes an effective reality rather than an idealistic theory. An earlier study (Rose, 2001) identified five of the main issues elementary school teachers face with implementing inclusion: classroom support (i.e., a desire for additional support staff for students with disabilities); training (i.e., a need for additional training and professional development); issues of time (i.e., a need for stronger classroom management strategies);

physical access (i.e., the need to create more physically accessible classrooms); and parental concerns (i.e., the need to educate parents of students without disabilities about the effects of inclusion on their own children).

Along with physical accommodations made in the classroom, curriculum modifications must be made in an inclusive academic environment. Destefano et al. (2001) demonstrated that elementary school teachers are more comfortable with modifying a general education classroom for students with disabilities in terms of assessment, curriculum, and instructional needs than they are making social or emotional accommodations. In a synthesis of 36 studies of general attitudes toward accommodating a classroom to support inclusion, Bolt and Thurlow (2004) reported that five of the most frequently accepted accommodations for student assessment, across disability types, are the use of dictated response, large print, Braille, extended time, and sign language. It is possible that these five accommodations are more frequently accepted because they serve students with disabilities that are more commonly understood, such as having blindness and requiring the use of Braille. Although this study highlighted the most commonly accepted accommodations, there are endless possibilities for making a learning environment accessible for any type of learner. The implementation of these changes, however, depends on many factors such as support, extent of resources, and positive attitudes.

Rapp (2005) outlined useful techniques for inclusive instruction, such as modeling positive behavior (i.e., scaffolding or explicit instruction). Modeling

encourages students with disabilities to behave in a less distracting manner and provides them with a model for age-appropriate social and adaptive skills. Rapp (2005) also suggested that classroom activities should be made more conceptually based, grounding the curriculum in the practical applications of knowledge, and students with disabilities should be engaged in a meaningful way by providing a purpose for their learning. Teachers should adapt the curriculum to strengthen self-regulation skills in students with disabilities, which supports intrinsic motivations to learn. The development of a learning community was also shown to be essential, where students learn effectively from both their peers and the teacher (Rapp, 2005).

Researchers (Waldron & McLuskey, 2010) continued to discuss the types of accommodations and modifications teachers should consider when including a student with a disability. Teachers were shown to be more effective when they made accommodations for including students with disabilities by planning curriculum and instruction that addressed a variety of different types of learners and student backgrounds than when those accommodations were absent. This approach allowed for daily lesson plans to be flexible and adaptable at any point to accommodate any students' unique learning need. Waldron and McLuskey (2010) also demonstrated that support within the classroom for students with disabilities must occur naturally to ensure that students requiring additional support in their learning feel comfortable while remaining in the general education setting. Lastly, a consistent classroom routine had been shown to help

reduce the disruptive behavior of students with disabilities, regardless of type of disability (Waldron & McLeskey, 2010).

Specific accommodations had also been shown to be beneficial depending on the type of disability a student has. For students with intellectual disabilities, communication and self-expression can often be a social and academic barrier in an inclusive environment. This challenging language barrier can make it difficult for teachers to develop and implement daily lesson plans that meet the unique needs of students with intellectual disabilities. Davie and Kemp (2002) examined the relationship between the conversation levels of students with mild to moderate intellectual disabilities and the effects of shared reading and facilitated play. In an elementary education classroom, shared reading was used when students were developing their language and literacy skills. Shared reading was shown to be beneficial because it allowed students to interact with an advanced text. This learning activity involved the active engagement and modeling of an instructor in the reading process. Facilitated play consisted of teacher supported play interactions between students with and without intellectual disabilities. Results from this study indicated that shared reading activities led to a greater increase in the conversation levels of students with intellectual disabilities with their peers without disabilities and the facilitator than did facilitated play activities. This study (Davie & Kemp, 2002) suggested that instructional literacy strategies that were modeled by the teacher and were interactive, such as shared reading, were more effective in eliciting

conversation between peers with and without disabilities in an inclusive classroom than were interventions that focus only on play.

Accommodations made for students with physical disabilities often involved the additional use of technological assistance (Coleman-Martin, Heller, Cihak, & Irvine, 2005; Hasselbring, Glaser, & Candyce, 2000). An earlier study (Coleman-Martin et al., 2005) addressed the effects of instruction made to three groups of students with physical disabilities with limited verbal abilities. One group received additional teacher instruction; a second group received additional computer-based instructional assistance; while the third group received both additional teacher instruction and computer-based instruction. All additional instructional assistance was geared at improving students' word identification skills. Results from this study indicated that students from all three groups showed significant improvement in their post-test scores of word identification. This finding suggested that the additional supports students might require can come in different forms and do not always require additional direct instruction from the teacher. Since additional computer assistance was shown to be just as effective at promoting student learning as one-on-one instruction, teachers can use this strategy to accommodate the unique learning needs of students with physical disabilities, while preserving time to assist other students in the class (Coleman-Martin et al., 2005).

Previous research (Bulut, 2005) identified challenges teachers had faced with instructional and classroom management accommodations that had to be made for including a child with a behavioral disability, specifically ADHD. This research

highlighted the typical behavior of a child with ADHD, such as being a disturbance to other students and being unable to focus on the teacher's directions, and discussed the implications of disruptive behavior in a general education classroom. Bulut (2005) suggested the level of understanding teachers hold regarding the type of disability a student has to be the most significant factor in making inclusion successful. This view implied that an increase in awareness programs could be beneficial in the successful inclusion of a student with a behavioral disability. Bulut (2005) also showed that students with ADHD learn most effectively when lessons are presented in a clear and structured fashion. In terms of classroom management, it was also beneficial for teachers to have a written, planned sequence of daily activities posted in the classroom as a constant reminder to students with ADHD 1) what they should be doing and 2) when. Haydon et al. (2009) also found that instructional accommodations have a positive impact on the academic outcomes of students with behavioral disabilities. Specifically, Haydon et al. (2009) revealed that when teachers allow for a variety of opportunities to respond, through oral, auditory, written responding, etc., students with behavioral disabilities demonstrated an increase in positive academic behavior, such as staying on-task, and a decrease in disruptive behaviors.

Many classroom accommodations made for students with all types of disabilities can be difficult to implement due to negative attitudes toward inclusion or a lack of resources and support. However when these accommodations are implemented successfully, students with disabilities are perceived to benefit both socially and

academically. A challenge with implementing the most effective accommodation is that each student is a unique learner, and although some generalizations can be made based on disability type, it truly comes down to the needs of the individual child.

The Current Study

A meta-analysis of 1373 articles published within the years 2001-2005 showed that inclusive education research had two overarching themes: the rights of children to be included and receive an equal education, and the effectiveness of inclusive education compared to segregated education (Lindsay, 2007). This study was based on the assumption that inclusion is effective as long as it is successfully implemented in a valuable way to benefit students with disabilities, students without disabilities, teachers, school principals, and the school district. Previous studies that examined the effects of classroom accommodations for children with different types of disabilities provided information regarding the specific ways in which inclusion had been successfully and effectively implemented in a general education classroom.

The current study was unique in the way it addressed the attitudes of elementary school teachers toward including students with different types of disabilities. Research had shown that teachers' attitudes toward students with disabilities predicted their attitudes toward inclusion and their ability to provide effective instruction. The present study was designed to examine how teachers' attitudes toward students with three different types of disabilities were related to their general attitudes about inclusion. Previous researchers had considered attitudes toward students with intellectual (Ahlborn

et al., 2008; Cooney et al., 2006; Davie & Kemp, 2002; Forlin & Hattie, 1996; Kemp, 2003; Kemp & Carter, 2002; Nowicki & Sandieson, 2002; Ouellette-Kuntz et al., 2010; Waldron & McLeskey, 2010; Yazbeck et al., 2004), physical (Coleman-Martin et al., 2005; Hasselbring et al., 2000; Hutzler et al., 2002; Nowicki & Sandieson, 2002; Siperstein et al., 2003; Weiserbs & Gottlieb, 2000), and behavioral disabilities (Avramidis et al., 2000; Bulut, 2005; Haydon et al., 2009; Jastrowski et al., 2007; Law et al., 2007; Muscott, 1997; Sherman et al., 2008), however this study was unique in its analyses of attitudes toward inclusion of students with these different disabilities in comparison to one another.

Previous research had shown that including students with disabilities did not negatively affect students without disabilities in a general education classroom (Rankin et al., 1999); however limited previous research had examined the possible benefits classroom accommodations can have on children without disabilities. This study was designed to examine how adaptations, made in a general education classroom to include students with disabilities, affect students without disabilities. The unique contribution of assessing how specific accommodations affect students without disabilities strengthens our understanding of inclusion and the specific ways in which classroom accommodations are, and are not, beneficial.

Many variables that affect attitudes toward inclusion had been addressed in previous research. These variables included the school system's theories of inclusion, teachers' experience levels in inclusive classrooms (Cook, 2004), teachers' perceived

level of support from the school system (Destefano et al., 2001), and the gender of teachers (Ahlborn et al., 2008; Rice, 2009; Royal & Roberts, 1987). These variables were considered in this study to examine their influence on teachers' attitudes toward the desirability, feasibility, and benefit to students without disabilities.

This study examined three main questions; (1) Does the type of disability, intellectual, physical, or behavioral, affect teachers' attitudes toward inclusion, as measured by their ratings of the desirability and feasibility of making several specific accommodations, as well as the perceived benefits of these accommodations for students without disabilities? (2) Does the type of school affect teachers' attitudes toward inclusion? Specifically this study compared the attitudes of teachers employed at magnet and charter schools (that are typically well resourced and supported) with the attitudes of teachers employed at traditional public schools. And (3) Do other factors like general attitudes toward inclusion, perceived extent of resources and support, years of teaching experience, years of teaching experience in an inclusive setting, or position within the school (e.g., head teacher, instructional assistant, support staff) influence teachers' attitudes toward the inclusion of a student with a moderate disability?

Method

Participants

The sample for this study included 103 elementary school teachers from eight elementary schools in Connecticut. As assessed through the demographics questionnaire, 93 (90.3%) of the participants were female, and two of the participants were male (1.9%).

Seventeen of the participants indicated being between 20-29 years of age (16.5%), 23 indicated being between 30-39 years of age (22.3%), 27 indicated being between 40-49 years of age (26.2%), 25 indicated being between 50-59 years of age (24.3%), and three indicated being over 60 years old (2.9%). Eight participants did not indicate a gender or an age (7.8%).

Of the 329 teachers that were contacted, 103 agreed to participate and completed the survey, indicating a response rate of 31.3%. Participants were drawn from a magnet school educating students in kindergarten through fifth grade with a focus on multiculturalism and bilingual education ($n=20$; 19.4%), a magnet school educating pre-kindergarten and kindergarten students with a focus on the inclusion of students with special needs ($n=21$; 20.4%), a charter school educating students in kindergarten through eighth grade with a focus on the inclusion of students with special needs ($n=16$; 15.5%), and five schools from a public school district ($n=38$; 36.9%). Participants were asked to identify what their position was within the school; a general education teacher ($n=51$; 49.5%), an instructor or assistant teacher ($n=17$; 16.5%), a special instructor or elective teacher (i.e., Art, Library, Music, etc.) ($n=11$; 10.7%), or a support services staff member (i.e., Occupational Therapy, Speech and Language, Literacy or Math Coach, etc.) ($n=14$; 13.6%). A small percentage of participants did not indicate which school they were currently working at ($n=8$; 7.8%), or what their current position was within the school ($n=10$; 9.7%), however they did complete enough of the survey to be included in data analyses.

Participants were also asked to respond to questions concerning their teaching experience. Teaching experience ranged from less than 20 – more than 60 years. Forty-six participants (44.7%) indicated they had been teaching for 10 years or less, 48 participants (46.6%) indicated they had been teaching for over 10 years, and nine participants (8.7%) did not indicate their years of teaching experience. Twenty-seven participants (26.2%) were currently certified to teach special education, whereas 79 (76.7%) were currently teaching in an inclusive classroom. Sixty-seven participants (65%) were currently certified to teach special education, and 14 participants (13.6%) were not currently teaching in an inclusive classroom. Nine participants (8.7%) did not indicate if they were certified, and 10 (9.7%) did not indicate if they were currently teaching in an inclusive classroom. Out of the 91 participants (88.3%) that indicated their years of experience teaching in an inclusive classroom, 56 (54.4%) had taught in an inclusive classroom for 10 years or less, and 35 had taught in an inclusive classroom for over 10 years (34%).

Materials

Demographics and Teaching Background. A demographics survey included several questions concerning participants' backgrounds, such as their gender, age, race, and ethnicity. The survey also consisted of questions addressing what school the teacher worked at, what position the teacher held at the school (i.e., general education teacher, instructor or assistant, special or elective teacher, or support services staff), the number of years a teacher had been teaching, what grade the teacher was currently working with,

and the extent of perceived resources (additional support, physical resources, and personal resources) from the school (McNally et al., 2001). Lastly, the survey addressed questions regarding participants' background in special education and inclusion (see Appendix G).

General Attitudes toward Inclusion. An adapted version of the Integration-Segregation subscale (INSE) of the revised Mental Retardation Attitude Inventory (MRAI; Antonak & Harth, 1994) was used to measure participants' attitudes toward people with disabilities. The INSE measured participants' attitudes toward integrating children with mental retardation in mainstream classrooms. In the proposed study, item revisions were made to assess elementary school teachers' attitudes toward including a student with a disability in a general education classroom. For example, the item "School officials should not place children who are mentally retarded and children who are not mentally retarded in the same classes" was revised to "School officials should not place students who have a disability and students who do not have a disability in the same classes." An operating definition of a student with a disability was included in the directions of the measure and was defined as "A person with a disability includes but is not limited to a person with an intellectual disability, physical disability, or behavioral disability." In items 1, 3, 4, and 7 the word "child/children" was changed to "student/students" and in item 7 "regular classes" was changed to "general education classes." These changes were made in an effort to use the modern language of inclusion.

The adapted INSE subscale consisted of seven items rated on a Likert scale with four anchors: strongly disagree, disagree, agree, and strongly agree, where agree responses indicate positive attitudes. Total scores on the adapted INSE subscale demonstrated teachers' attitudes toward including students with disabilities in a general education classroom. For the seven items, total scores from the adapted rating scale ranged from 7 to 28, where lower scores indicated less favorable attitudes and higher scores indicated more favorable attitudes toward people with disabilities. Of the seven items in the INSE, items 1, 3, 4, and 6 were reverse scored so that disagree responses indicated positive attitudes, instead of negative attitudes (see Appendix B). Psychometric analysis of the INSE in other research indicated a mean score of 22.25 on the 7-item scale, a standard deviation of 3.19, a Cronbach's alpha of .81, and a mean item-to-scale correlation of .69. In this study, an analysis of teachers' responses to the INSE indicated a Cronbach's alpha of .79. Removing item 2, which addressed the inclusion of people with disabilities in the same neighborhood, increased this value.

Specific Attitudes toward Classroom Accommodations. The Adaptation for Mainstreamed Students in the General Education Classroom: Desirability and Feasibility Questionnaire, also known as the Adaptation Evaluation Instrument (AEI; Schumm & Vaughn, 1991) was used to rate elementary school teachers' attitudes toward including children with disabilities in a mainstream classroom. The original measure consists of 29 classroom adaptations, and participants' attitudes were judged by two areas: desirability toward inclusion, which referred to how much participants would like to have the

adaptation occur, and perceived feasibility toward inclusion, which referred to how easily participants' think the adaptation could occur. Each adaptation was rated for desirability and feasibility using a Likert scale ranging from 1 to 7, where 1 represented the lowest rating and 7 represented the highest rating. The AEI desirability subscale had a reported reliability coefficient of .97, and the feasibility subscale had a reported reliability coefficient of .95. The original scale also showed high content validity.

The AEI was adapted from its original version for the present study. It originally addressed the inclusion of "mainstreamed students," and was rephrased to address the inclusion of a student with a disability. Prior to completing this survey, participants reviewed one of three vignettes describing a student with a moderate intellectual disability (see Appendix C), a moderate physical disability (see Appendix D), or a moderate behavioral disability (see Appendix E). The vignettes were developed by the researcher and were modeled on vignettes used in previous research (Cutter, Palincsar, & Magnusson, 2002; McNally et al., 2001). All three vignettes describe Mary as an 8-year-old girl with either a moderate intellectual, physical, or behavioral disability entering a second grade class. The 29 items on the AEI were adapted to address the inclusion of Mary. For example, the original scale item, "Adjust physical arrangement of the room for included students (e.g., modified seating arrangement)" was adapted to read, "Adjust physical arrangement of the room for Mary (e.g., modified seating arrangement)." In this study, items 7, 9, 10, and 28 were removed from the AEI to help reduce participant fatigue. Item 7, which addressed teachers' communication with Mary, item 9, which

addressed teachers' communication with Mary's parents, and item 10, which addressed teachers' establishment of expectations for Mary, were removed because these accommodations are expected of teachers for all students, not just included students with disabilities. Item 28, which addressed teachers' adaptation of evaluations for Mary, was removed because it seemed repetitive with item 29, which addressed teachers' adaptation of scoring/grading criteria for Mary.

The adapted version of the AEI used in the present study included the original two subscales along with an additional third subscale, which addressed how beneficial participants believed each adaptation would be for students without disabilities in the general education classroom. The perceived benefits of each adaptation was measured using a Likert scale ranging from 1 to 7, where 1 indicated low benefits and 7 indicated high benefits (see Appendix F). Statistical analysis of the inter-rater reliability of the three 25 item subscales indicated a Cronbach's alpha of .98 for the desirability subscale, a Cronbach's alpha of .96 for the feasibility subscale, and a Cronbach's alpha of .97 for the beneficial subscale.

Procedure

Participants were recruited at schools where superintendent approval was obtained, as well as endorsement by the principal on a school-by-school basis. The two magnet schools and the one charter school that participated in the study did not require superintendent approval, but rather each school's director granted consent.

Superintendents of local school districts in Connecticut were contacted through a letter of intent to ask for permission to distribute an online survey to the elementary school teachers currently employed by the district. The letter introduced the research, addressed the responsibilities and potential benefits of their district's participation, and the possible implications of the results (see Appendix I). Once superintendent permission was granted, the principals of the elementary school teachers within the district were contacted through a similar letter of intent. Through this process, five public elementary schools from the same district agreed to participate. Three schools that also agreed to participate represented students from several surrounding districts (magnet and charter schools) and therefore operated independently of school districts. These schools were solicited through direct contact with their respective directors. Once principal or director permission was granted, teachers employed by these schools were randomly placed in one of three groups based on the staff lists available on the school websites. All participants received an email from their respective principals or directors announcing the survey and requesting their participation (see Appendix J). Each group of participants then received an email that included their corresponding link to an online survey (via SurveyMonkey; see Appendix K). Data collection ran for three weeks and during that time teachers received a reminder email twice (see Appendix L). At the end of the three weeks, teachers received an email thanking them for their participation in the study (see Appendix M). As an incentive to participate, teachers were given the opportunity to enter a "Chance to Win" contest, for a \$25 gift certificate to a Borders Bookstore. Once the

analyses were completed, teachers and administrators were contacted one last time through an email detailing the main findings of the research and potential interpretations and implications for their school.

Before completing the online survey, participants first provided an electronic signature on a consent form, which ensured the privacy of their responses and contained a brief explanation of their responsibilities and rights (see Appendix A). Next, participants responded to the INSE subscale of the Attitude Inventory – Revised and then read one of the three vignettes. Participants then considered the student as described in the vignette and responded to the adapted AEI. Lastly, participants filled out a demographics survey addressing their backgrounds and previous experience teaching general education and in an inclusive classroom. The set of questionnaires took approximately 15 minutes to complete. Upon completion of the questionnaires, participants were provided with a debriefing form addressing the purpose and intent of the research (see Appendix G). The Connecticut College Institutional Review Board approved this research.

Results

Descriptive Analyses

Mean scores and standard deviations for teachers' general attitudes toward inclusion, as well as the three primary dependent variables, are shown in Table 1. These dependent variables were: teachers' ratings of the desirability of accommodations recommended for a hypothetical child with one of three disability types (intellectual, physical, behavior) of moderate severity, teachers' ratings of the feasibility of the

accommodations, and teachers' ratings of the benefits of making the accommodations for students without disabilities in the classroom. Teachers' general attitudes toward inclusion were scored on a 4-point scale, where high scores indicated a positive attitude. Desirability, feasibility, and benefits of the accommodations were scored on a 7-point scale, where high scores indicated high levels of desirability, feasibility, and benefit. Teachers indicated positive attitudes toward the inclusion of students with disabilities in general. The mean scores also suggested that teachers found making accommodations very desirable, however slightly less feasible and not as beneficial for students without disabilities in the classroom.

Table 1

Descriptives

Attitudes	<i>n</i>	Minimum	Maximum	<i>M (SD)</i>
General Attitudes	103	2.50	4.00	3.31 (.43)
Desirability	103	3.12	7.00	6.50 (.72)
Feasibility	103	3.08	7.00	5.85 (.92)
Beneficial	103	2.76	7.00	5.74 (1.18)

Note. The General Attitudes scale was measured by the INSE subscale and was rated on a Likert scale where one indicated negative general attitudes and a four indicated a positive general attitude. The three AEI subscales, desirability, feasibility, and beneficial, were measured on a Likert scale where a one indicated negative attitudes and a seven indicating positive attitudes.

The Influence of Disability Type on Accommodation Perceptions

Disability Type. To examine the hypothesis that elementary school teachers' attitudes toward accommodations were influenced by the type of disability a student had (intellectual, behavioral, physical), a one-way between-groups multivariate analysis of variance (MANOVA) was performed on desirability of the suggested accommodations, feasibility of the accommodations, and perceived benefits of the accommodations for students without disabilities in the classroom. This analysis indicated there was no significant multivariate effect for the type of disability, $F(6,196) = 0.62$, $p = .715$, Wilks's Lambda = .96, $\eta^2 = .019$. Despite the absence of a multivariate effect, univariate analyses were examined for exploratory purposes. Student disability type had no effect on accommodations desirability, $F(2,100) = 0.59$, $p = .554$, $\eta^2 = .012$, feasibility, $F(2,100) = 0.53$, $p = .59$, $\eta^2 = .010$, or perceived benefit for students without disabilities in the classroom, $F(2,100) = 0.35$, $p = .708$, $\eta^2 = .007$.

The preceding analysis was repeated using only the participants that identified themselves as general education teachers, $N = 51$. This analysis did not include the participants that identified as instructional assistances, support services, or special teachers/electives. The analysis showed no significant multivariate or univariate effects, suggesting that type of disability had no effect on teachers' attitudes toward inclusion even when the analysis was restricted to classroom teachers.

General Attitudes toward Inclusion by Disability Type. Because the finding that disability type had no influence on teachers' perceptions of accommodations was

unexpected, a series of alternative MANOVAs was conducted to examine whether disability type mattered in interaction with another predictor. All significant and marginal effects were reported for exploratory purposes and to facilitate hypothesis generation for future research. Findings that were significant with a Bonferroni correction over the four MANOVAs ($p < .012$) are highlighted. First, to examine whether teachers' general attitudes toward inclusion influenced their responses to accommodations for students with different disabilities, the preceding analysis was repeated as a 3 (disability type: intellectual, behavioral, physical) \times 2 (attitude toward inclusion: high/positive versus low/negative based on the mean score) MANOVA. Although general attitudes toward disability were measured continuously, a categorical variable was formed to examine possible interactions with disability type. Additional correlational analyses with general attitudes toward inclusion are reported in a later section. There was a significant, multivariate main effect for general attitude toward inclusion, $F(3,95) = 5.14$, $p = .002$; that was significant with Bonferroni correction; Wilks's Lambda = .86, $\eta^2 = .140$, but no significant multivariate main effect for disability type, $F(6,190) = 0.50$, $p = .810$, Wilks's Lambda = .97, $\eta^2 = .015$, and no significant multivariate interaction between attitude and disability type, $F(6, 190) = 1.42$, $p = .207$, Wilks's Lambda = .92, $\eta^2 = .043$. Univariate tests indicated significant effects for general attitude for all three dependent variables: desirability, $F(1,97) = 4.50$, $p = .036$, $\eta^2 = .044$, feasibility, $F(1,97) = 13.37$, $p < .001$, $\eta^2 = .121$, and perceived benefits for students without disabilities, $F(1,97) = 13.39$, $p < .001$, $\eta^2 = .121$, where feasibility and perceived benefits were significant with Bonferroni

correction. The mean scores, presented in Figure 1, indicated that teachers with a positive general attitude toward inclusion reported classroom accommodations to be more desirable, more feasible, and especially more beneficial for students without disabilities than did teachers with a less positive attitude toward inclusion in general.

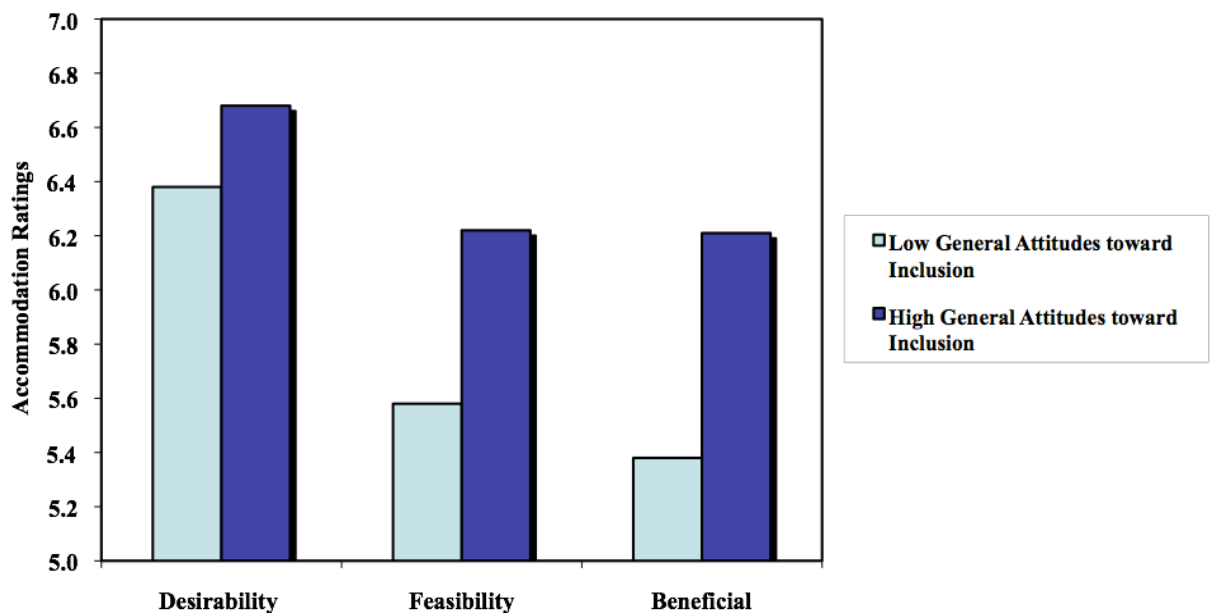


Figure 1. The Influence of Teachers' Attitudes toward Inclusion on Accommodation Perceptions.

Teaching Experience by Disability Type. To examine whether years of teaching experience influenced teacher responses to accommodations for students with different disabilities, the main disability analysis was repeated as a 2 (years of experience: 10 years or less; over 10 years,) X 3 (disability type: intellectual, physical,

behavioral) MANOVA. Although there was no multivariate effect for years of teaching experience, $F(3, 86) = 1.50$, $p = .220$, Wilks's Lambda = .95, $\eta^2 = .050$, or type of disability, $F(6,172) = 0.66$, $p = .682$, Wilks's Lambda = .96, $\eta^2 = .022$, there was a marginally significant multivariate interaction, $F(6,172) = 2.03$, $p = .064$, Wilks's Lambda = .87, $\eta^2 = .066$. Univariate tests of the three separate dependent variables indicated a marginally significant interaction effect between years of teaching experience and type of disability on accommodation desirability, $F(2,88) = 2.85$, $p = .063$, $\eta^2 = .061$. There was no effect for feasibility, $F(2,88) = 1.93$, $p = .151$, $\eta^2 = .042$, or perceived benefits for students without disabilities, $F(2,88) = 1.99$, $p = .142$, $\eta^2 = .043$. Simple effects tests were not significant for inexperienced teachers, $F(2,88) = 2.17$, $p = .121$, or for experienced teachers, $F(2,88) = 1.15$, $p = .320$, but pairwise comparisons suggested that less experienced teachers saw making classroom accommodations for a student with an intellectual ($p = .068$) or physical disability ($p = .082$) as somewhat more desirable than making accommodations for a student with a behavioral disability. There were no pairwise differences or trends for experienced teachers (see Figure 2).

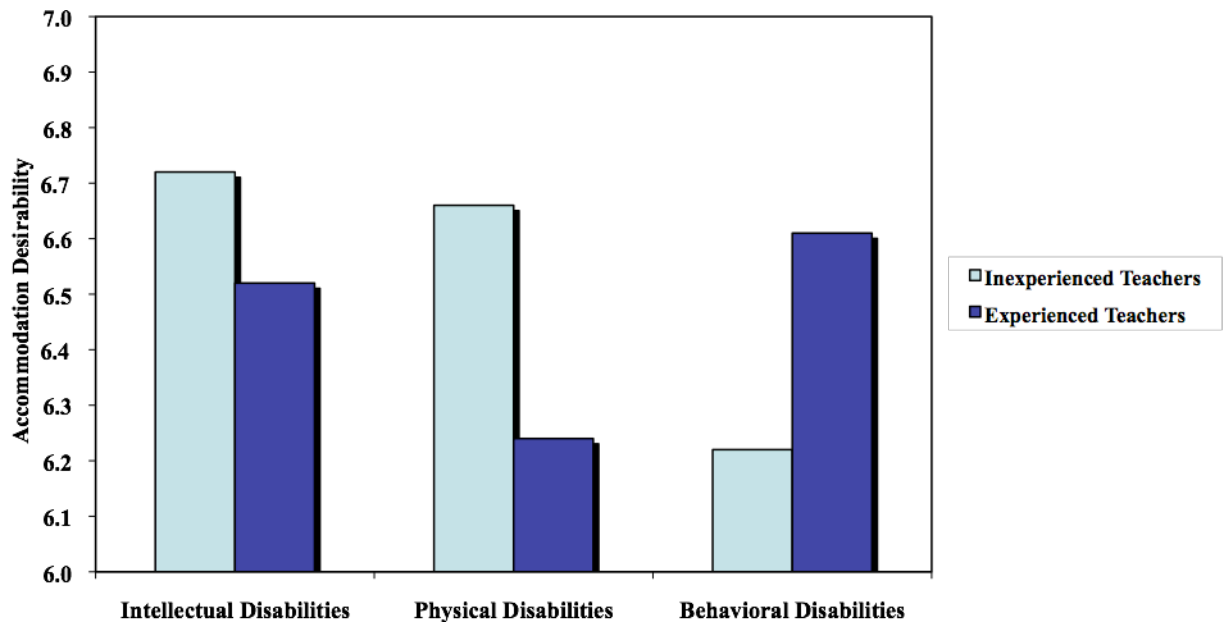


Figure 2. The Marginal Influence of Teacher Experience on Perceived Desirability of Accommodations. Inexperienced teachers refer to participants that have taught for 10 years or less. Experienced teachers refer to participants that have taught for more than 10 years.

School Type by Disability Type. The main disability analysis was repeated as a 2 (school type: magnet/charter; public) X 3 (disability type: intellectual, physical, behavioral) MANOVA to analyze the influence of school type on perceptions of accommodations for students with different disabilities. For this analysis, participants were divided into teachers employed at a magnet or charter school and teachers employed at traditional public schools. The analysis indicated that there was no multivariate main effect for school type, $F(3,87) = 1.87$, $p = .141$, Wilks's Lambda = .94, $\eta^2 = .061$, or type of disability, $F(6,174) = .71$, $p = .644$, Wilks's Lambda = .95, $\eta^2 = .024$, and there was no significant multivariate effect for the interaction between the type of school and the

student's disability, $F(6,174) = .51$, $p = .797$; Wilks's Lambda = .96, $\eta^2 = .017$. Univariate follow up tests were examined for exploratory purposes and indicated a significant effect for school type on perceived benefits for students without disabilities, $F(1,89) = 4.68$, $p = .033$, $\eta^2 = .050$, indicating that teachers from charter and magnet schools saw greater perceived benefits for students without disabilities than teachers from traditional public schools. No other univariate tests indicated significant effects (see Figure 3).

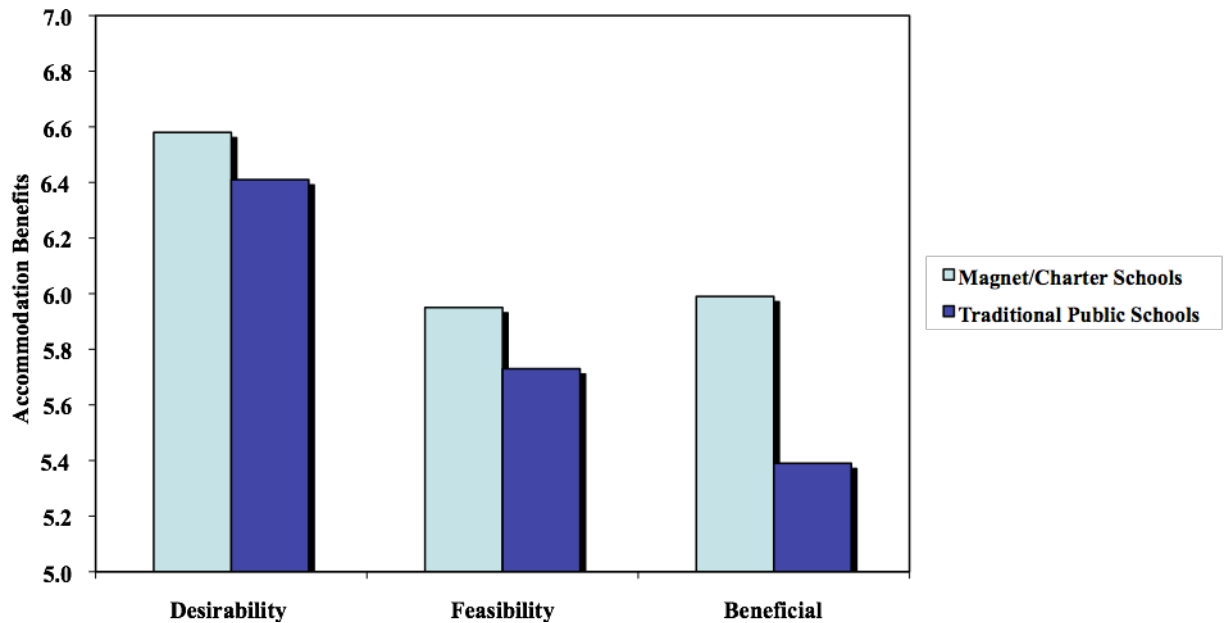


Figure 3. The Influence of School Type on the Accommodation Perceptions.

Inclusion Resources by Disability Type. A 2 (inclusion resources: high or low, based on mean score) X 3 (disability type: intellectual, physical, behavioral) MANOVA

was performed to analyze the influence of teachers' self-reported support, physical, and personal resources for inclusion on their perceptions of accommodations for students based on the type of disability a student had. There were no significant multivariate main effects for the extent of inclusion resources a teacher had access to, $F(3,78) = 0.67$, $p = .573$, Wilks's Lambda = .97, $\eta^2 = .025$, or for type of disability, $F(6,156) = 0.67$, $p = .675$, Wilks's Lambda = .95, $\eta^2 = .025$, and no significant multivariate interaction effect, $F(6,156) = 1.42$, $p = .211$; Wilks's Lambda = .90, $\eta^2 = .052$. Despite the lack of multivariate effects, univariate tests were explored, but these tests indicated no significant main effects or interactions.

Examining Environmental, Academic, and Social Accommodations

To further explore teachers' attitudes toward accommodations, the 25 items on the Adaptation Evaluation Instrument were divided into three theoretically derived subscales: environmental inclusion/classroom management, instructional inclusion, and social/emotional inclusion (see Table 2). The Environmental Inclusion/Classroom Management subscales consisted of 7 items addressing classroom accommodations made to adjust the physical classroom environment as well as the classroom rules and routines; i.e., "Establish routines appropriate for including Mary" and "Adjust physical arrangement of the room for including Mary (e.g., modified seating arrangement)." These items were used across each evaluative dimension to form scores for the desirability of environmental accommodations, the feasibility of environmental accommodations, and the benefit of environmental accommodations for students without disabilities in the

classroom. The environmental accommodation desirability subscale had a Cronbach's alpha of .936, with a mean inter-item correlation of .688; the environmental feasibility subscale had a Cronbach's alpha of .899, with a mean inter-item correlation of .567; and the environmental benefit subscale had a Cronbach's alpha of .919, with a mean inter-item correlation of .621.

The Instructional Inclusion subscales consisted of 13 items that addressed the classroom accommodations made pertaining to the teachers' instruction including "Make adaptations for including Mary when making daily lesson plans," and "Allot time for teaching learning strategies to Mary as well as content." The instructional accommodation desirability subscale had a Cronbach's alpha of .962, with a mean inter-item correlation of .703; the instructional feasibility subscale had a Cronbach's alpha of .946, with a mean inter-item correlation of .592; and the instructional benefit subscale had a Cronbach's alpha of .958, with a mean inter-item correlation of .648.

The third subscale addressed accommodations on the AEI pertaining to students' social and emotional well-being. The Social/Emotional Inclusion subscale consisted of 5 items including "Provide reinforcement and encouragement to Mary," and "Help Mary to find appropriate ways to deal with her feelings." The social/emotional desirability accommodation subscale had a Cronbach's alpha of .856, with a mean inter-item correlation of .577; the social/emotional feasibility subscale had a Cronbach's alpha of .799, with a mean inter-item correlation of .450; and the social/emotional benefit subscale had a Cronbach's alpha of .867, with a mean inter-item correlation of .575.

Table 2

Development of Adaptation Evaluation Instrument Subscales and Items

Subscale Name	N_{Items}
Environmental Inclusion/Classroom Management Subscale	7
Establish routines appropriate for including Mary.	
Adapt classroom management strategies that are effective for including Mary.	
Communicate with inclusion facilitator about Mary.	
Adjust physical arrangement of the room for including Mary.	
Adapt general classroom materials for including Mary.	
Use alternative materials for including Mary.	
Use computers to enhance Mary's learning.	
Instructional Inclusion Subscale	13
Make adaptations for including Mary when planning for the long range.	
Make adaptations for including Mary when making daily lesson plans.	
Plan assessments and activities that allow Mary to be successful.	
Allot time for teaching learning strategies to Mary as well as content.	
Monitor Mary's understanding of directions and assigned tasks.	
Monitor Mary's understanding of concepts presented in class.	
Provide individual instruction for including Mary.	

Involve Mary in whole class activities.

Involve Mary in small class activities.

Provide extra time for including Mary.

Adapt pacing of instruction.

Provide Mary with ongoing feedback about performance.

Adapt scoring/grading criteria for including Mary.

Social/Emotional Inclusion

5

Respect Mary as an individual with differences.

Provide reinforcement and encouragement to Mary.

Establish a personal relationship with Mary.

Help Mary to find appropriate ways to deal with her feelings.

Pair Mary with a classmate.

Influence of School Type on Accommodations Subscales. MANOVAs were run to examine the effects of school type and disability type on the accommodation subscales of the three factors of the AEI. Results indicated that, as before, disability type did not affect teachers' attitudes toward making accommodations, so type of disability was dropped to focus on the effects of school type. All significant and marginal effects were reported for exploratory purposes and to facilitate hypothesis generation for future research. No findings were significant using a Bonferroni correction over the three

analyses within this set ($p < .017$). To examine the hypothesis that the type of school would influence teacher attitudes toward different types of accommodations (Environmental Inclusion/Classroom Management, Instructional Inclusion, and Social/Emotional Inclusion), three between subjects MANOVAs were conducted. First, a 2 (school type: magnet/charter; public) X 3 (desirability accommodations: environmental inclusion/classroom management, instructional inclusion, social/emotional inclusion) MANOVA was conducted. This analysis indicated no significant multivariate effects, $F(3,90) = 0.89$, $p = .449$, Wilks's Lambda = .97, $\eta^2 = .029$, and no univariate effects for the Environmental Inclusion/Classroom Management subscale, $F(1,92) = 0.82$, $p = .368$, $\eta^2 = .009$, the Instructional Inclusion subscale, $F(1,92) = 1.17$, $p = .282$, $\eta^2 = .013$, or the Social/Emotional Inclusion subscale, $F(1,92) = 2.08$, $p = .152$, $\eta^2 = .022$. This outcome suggested that the type of school a teacher worked at did not influence his/her ratings of the desirability of different types of accommodations in a general education classroom.

Second, a 2 (school type: magnet/charter; public) X 3 (feasibility accommodations: environmental inclusion/classroom management, instructional inclusion, social/emotional inclusion) MANOVA was run. This analysis indicated no significant multivariate effects, $F(3,91) = 0.86$, $p = .483$, Wilks's Lambda = .97, $\eta^2 = .026$, and no significant univariate effects for the Environmental Inclusion/Classroom Management subscale, $F(1,93) = 2.18$, $p = .143$, $\eta^2 = .023$, the Instructional Inclusion subscale, $F(1,93) = 0.96$, $p = .331$, $\eta^2 = .010$, or the Social/Emotional subscale, $F(1,93) =$

1.42, $p = .236$, $\eta^2 = .015$. These results indicated that teachers, at both types of schools, found it equally feasible to make classroom accommodations, of all types, in a general education classroom.

Finally, a 2 (school type: magnet/charter; public) X 3 (benefits of accommodations: environmental inclusion/classroom management, instructional inclusion, social/emotional inclusion) MANOVA was conducted. This analysis showed a significant multivariate effect for school type, $F(3,90) = 2.99$, $p = .035$, Wilks's Lambda = .909, $\eta^2 = .091$. Follow up tests revealed significant univariate effects for the benefit of Instructional Inclusion accommodations subscale, $F(1,92) = 4.61$, $p = .035$, $\eta^2 = .048$, and the benefit of Social/Emotional accommodations subscale, $F(1,92) = 6.06$, $p = .016$, $\eta^2 = .062$. No univariate effect was shown for the benefit of Environmental Inclusion/Classroom Management accommodations subscale, $F(1,92) = 2.45$, $p = .121$, $\eta^2 = .026$ (see Figure 4). These results suggested that attitudes about the benefits of making instructional and social/emotional accommodations for students without disabilities vary over school type. An examination of the means revealed that teachers employed at magnet or charter schools, which typically had strong inclusion policies and practices, believed making instructional and social/emotional accommodations was more beneficial for the students without disabilities in the classroom, than did teachers employed at public schools within a specific school district (see Figure 4). Public schools typically had an inclusion policy; however it was often not as well developed or

supported, as were the policies in charter or magnet schools, where successful inclusion may be an explicit part of their mission.

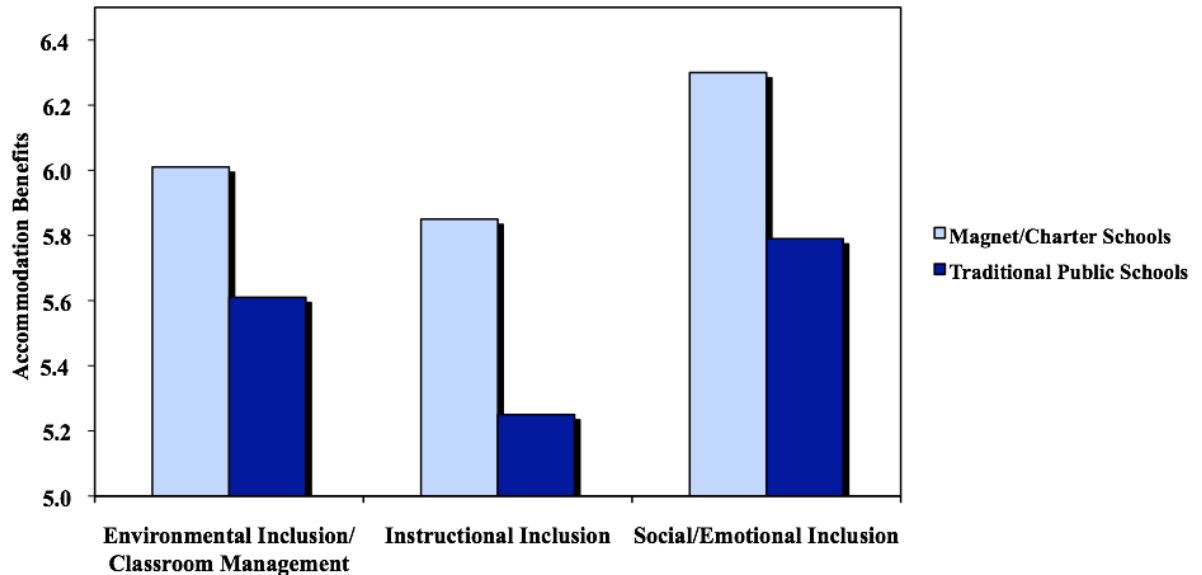


Figure 4. The Influence of School Type on the Perceived Benefits of Making Accommodation Subscales.

Examining Differences over School Type. To further explore why school type differences may exist, a MANOVA examining the influence of school type on access to resources (support, physical, personal), was conducted. All significant and marginal effects were reported for exploratory purposes and to facilitate hypothesis generation for future research. Findings that were significant with a Bonferroni correction over the two school type analyses ($p < .025$) are highlighted. The first analysis was conducted to

examine if teachers employed at magnet or charter schools reported having greater access to resources compared to teachers employed at a public school within a school district. The analysis revealed that there was no significant multivariate effect of school type for access to resources, $F(3,79) = 0.61$, $p = .609$, Wilks's Lambda = .977, $\eta^2 = .023$, and follow up tests indicated no significant univariate effects for greater extent of support resources, $F(1,81) = 0.53$, $p = .468$, $\eta^2 = .007$, additional physical resources, $F(1,81) = 1.72$, $p = .194$, $\eta^2 = .021$, additional personal resources, $F(1,81) = 0.91$, $p = .342$, $\eta^2 = .011$, or extent of resources in general, $F(1,81) = 1.27$, $p = .263$, $\eta^2 = .015$.

To examine the effects of school type on teachers' general attitudes toward inclusion, an ANOVA was conducted. Results indicated a significant main effect for school type, $F(1,94) = 5.70$, $p = .019$, $\eta^2 = .058$, which was significant with Bonferroni correction. An examination of the means revealed that teachers employed at magnet or charter schools had more positive general attitudes toward inclusion than did teachers employed at traditional public schools. These results suggested that differences reported earlier between teachers at charter/magnet versus public schools in their perceptions of specific accommodations may be more due to differences in attitudes than to differences in resources.

Relationships between Perceptions of Accommodations, Attitudes, and Resources

General Attitudes toward Inclusion and Perceptions of Accommodations.

The relationships between teachers general attitudes toward inclusion (as measured by the INSE) and how desirable they found different classroom accommodations, how

feasible they found them to be, and how beneficial they believed the accommodations to be for students without disabilities were investigated by using Pearson product-moment correlation coefficients (see Table 3). A positive correlation, $r = .270$, $p = .006$, was shown between teachers' general attitudes toward inclusion and overall accommodation desirability; stronger positive attitudes toward inclusion in general were modestly related to stronger feelings that accommodations were desirable. The analysis also indicated a positive correlation, $r = .401$, $p < .001$, between general attitudes and feasibility; stronger positive attitudes toward inclusion were moderately related to stronger feelings that accommodations were more feasible. Lastly, an analysis revealed a positive correlation, $r = .458$, $p < .001$, between attitudes toward inclusion and perceived benefit of the accommodation for classmates without disabilities. This correlation showed that stronger, positive attitudes toward inclusion in general were moderately related to stronger feelings that accommodations were beneficial for students without disabilities in the classroom.

Correlations with general attitudes toward inclusion were next conducted using the Environmental Inclusion/Classroom Management, Instructional Inclusion, and Social/Emotional Inclusion subscales. These analyses further explored the relationship between teachers' attitudes toward inclusion in general and their evaluations of specific types of accommodations. Results indicated that attitudes were positively correlated with all desirability, feasibility, and benefits for students without disabilities subscales. Results indicated that general attitudes toward inclusion were more highly correlated with

perceived benefits for students without disabilities, than with desirability or feasibility of making accommodations (see Table 3).

Table 3

Correlations between General Attitudes, Resources, AEI, and Accommodation Subscales

Accommodation Type	General Attitudes	<i>N</i>	Resources	<i>N</i>
Desirability	.27*	103	.13	86
Environmental Inclusion	.26*	103	.10	86
Instructional Inclusion	.27*	103	.15	86
Social Inclusion	.27*	102	.19	85
Feasibility	.40**	103	.22*	86
Environmental Inclusion	.37**	103	.21	86
Instructional Inclusion	.39**	103	.24*	86
Social Inclusion	.38**	103	.13	86
Benefits	.46**	103	.21	86
Environmental Inclusion	.48**	103	.17	86
Instructional Inclusion	.42**	102	.24*	85
Social Inclusion	.41**	102	.10	85

Note. AEI = Adaptation Evaluation Instrument.

* $p < .01$. ** $p < .001$

Resources and Perceptions of Accommodations. The relationships between the extent of resources teachers have (measured by self-reported access to additional support, personal, and physical resources) and their attitudes toward inclusion (as measured by the desirability, feasibility, and beneficial subscales of the AEI) were examined using Pearson product-moment correlation coefficients (see Table 3). For these analyses, an N of 86 was used because 17 participants did not indicate their perceived access to additional support, physical, or personal resources, and therefore could not be considered in the analyses. There was a modest positive relationship between teachers' extent of resources and perceived feasibility of making accommodations, $r = .219$, $p = .043$. This relationship suggested that higher self-reported access to resources was related to stronger beliefs that making accommodations was feasible in a general education classroom. Results revealed no significant correlations between teachers' access to resources and perceived desirability of accommodations, $p = .246$, or between extent of resources and how beneficial teachers believed accommodations to be for students without disabilities in the classroom, $p = .055$.

Correlations were next examined between extent of resources and accommodation subscales (Environmental Inclusion/Classroom Management, Instructional Inclusion, and Social/Emotional Inclusion). These analyses further explored the relationship between teachers' access to resources and their evaluations of the feasibility of specific types of accommodations. Positive correlations were shown between teachers' extent of resources and the Instructional Inclusion subscale for feasibility, $r = .244$, $p = .023$, and

benefits for students without disabilities, $r = .243$, $p = .025$. These correlations suggested that high self-reported access to resources was modestly related to stronger feelings that instructional accommodations were feasible and beneficial for students without disabilities in the classroom. No other correlations were found for the other subscales for feasibility: environmental inclusion/classroom management, $p = .055$, or social/emotional inclusion, $p = .239$, or for benefits for students without disabilities: environmental inclusion/classroom management, $p = .116$, or social/emotional inclusion, $p = .073$. Results indicated that no significant relationships were found between teachers' self-reported access to resources and accommodation desirability; environmental inclusion/classroom management, $p = .350$, instructional inclusion, $p = .160$, or social/emotional inclusion, $p = .358$ (see Table 3).

Discussion

The goal of this research was to extend the existing research on attitudes of elementary school teachers toward the inclusion of students with disabilities in a general education classroom. Specifically, this study set out to examine the effects of disability type on teachers' attitudes toward making accommodations for a student with a moderate disability. The attitudes of teachers were measured by their ratings of 25 common classroom accommodations, on three subscales: desirability, feasibility, and the benefits for students without disabilities. Disability type had little effect on teachers' attitudes toward inclusion accommodations, except in the perceptions of accommodation desirability by experienced versus inexperienced teachers. Other factors had a stronger

influence on accommodation perceptions including teachers' general attitudes toward inclusion, whether the teacher worked at a charter or magnet school versus a traditional public school, and the extent of inclusion support resources at the school. Findings suggested that although the type of disability a student had did not affect attitudes toward inclusion, teachers' attitudes and the school's inclusion policy did. This study has many implications for the successful implementation of an inclusion policy and suggests future directions for research on this topic.

Influence of Disability Type

The first research question of this study was whether disability type would influence the attitudes of elementary school teachers toward making accommodations for including students with disabilities in a general education classroom. This study examined the effects of disability type (moderate intellectual, physical, or behavioral) on teachers' perceptions of the desirability of specific accommodations, how feasible they believed the accommodations were, and finally how beneficial they believed the accommodations were for students without disabilities in the classroom. Results indicated that disability type did not affect teachers' attitudes toward making accommodations. Teachers found making accommodations for students with disabilities, regardless of the type of disability, as highly desirable, feasible, and also beneficial for students without disabilities. These findings suggested that elementary school teachers, in general, had positive attitudes toward making accommodations for unique learners in general education classrooms. Making classrooms accessible for all types of learners is

one of the many long-term goals of inclusion, and this study showed the progress inclusive policies have achieved in schools.

The preceding analysis was repeated using only general education teachers, excluding assistant teachers, support staff, or special instructors, and even with this exclusion disability type still had no overall effect on teacher' attitudes toward making accommodations. Jinnah-Ghelani and Stoneman (2009) demonstrated that childcare providers were willing to make accommodations for students with disabilities and recognize the benefits of inclusion, regardless of disability type. Jinnah-Ghelani and Stoneman (2009) identified five main themes in the accommodations accepted by childcare providers, adapting the physical space, adapting the learning activities (i.e., monitoring involvement, establishing structure and routines, and adapting field trips to provide access), focusing on peer socialization, adaptations for supervision and safety, and adaptation focusing on parent-provider communication. Jinnah-Ghelani and Stoneman's (2009) study demonstrated that a wide variety of accommodations were made by childcare providers, regardless of the type of disability a child had.

Although it was not shown in the current study, other research had shown that disability type can affect teachers' attitudes under some circumstances. Thomas, Curtis, and Shippen (2011) examined the attitudes of general educators, special educators, and coaches toward the inclusion of a child with a physical disability or a mental disability. Results indicated that general educators highly preferred adapting a classroom for a student with a physical disability over a student with a mental disability. The study

suggested that teachers may have felt more capable in making accommodations for someone with a physical disability, and less capable in making effective accommodations for a student with an intellectual disability. Previous research showed that teachers with a greater understanding of the type of disability viewed the unique needs and behaviors of that student as predictable and therefore felt more capable of making accommodations, than teachers that did not have a strong understanding of the type of disability (Bulut, 2005). The present study showed a marginal interaction effect for teacher experience, as described in subsequent sections.

The limited influence of disability type in the present study could be explained by the behavioral description of the student in the three vignettes. In previous research (Byrne & Hennessy, 2009; Law et al., 2007; Waldron & McLeskey, 2010), teachers' attitudes toward students with disabilities were related to the amount of disruptive behavior a student exhibited, regardless of disability type. This finding suggested that including students with behavior disabilities could be more difficult compared to including students with other types of disabilities, such as intellectual or physical disabilities, assuming there was a difference in disruptive behavior. However, the vignettes included in this study labeled the severity of the disability as moderate and included the following behavioral description for all three disability types:

She is capable of understanding what is going on in the classroom and likes to participate in activities that interest her, such as writing, music, and art. Mary is also very stubborn and does not like to participate in activities that do not interest

her. When she gets irritated she requires additional attention to get her engaged. At times she can be easily redirected, but at other times redirecting her can be a challenge (see Appendices C, D, and E).

Teachers may have viewed this behavior as manageable within a general education classroom environment and easy to accommodate, regardless of disability type. More importantly, the equivalence of the stated behavioral disruption across disability types made the behavioral aspect of the disability equally manageable across disability type. Byrne and Hennessy (2009) demonstrated teachers had more positive intentions, such as making accommodations, for students with moderate disabilities who demonstrated less disruptive behavior than for students who demonstrated more disruptive behavior. Future research should vary both the type of disability and the type of disruptive behavior to better understand the joint influence of these factors on teachers' attitudes toward inclusion. It is possible that different types of disabilities can be disruptive in unique manners, and this variation could affect teachers' attitudes toward making accommodations. In addition to directly manipulating disruptive behavior level and type, assessing teachers' expectations of disruption from students with different disability types would also be useful.

It is also possible that teachers viewed including these students as desirable, feasible, and beneficial for students without disabilities because of the moderate level of severity described in the vignette. Previous research done by McNally, Cole, and Waugh, (2001) showed that teachers expressed the need for additional personal support

when including a child with a severe disability, compared to a mild disability. This research suggested that the level of severity of the disability may influence teachers' attitudes toward making accommodations, specifically how feasible they believed making accommodations would be in a general education classroom. It is possible that no differences existed across disability type because of the moderate severity level, which teachers believed was easily accommodated.

Additional analyses were run to explore possible interaction effects between disability type and other factors such as general attitudes toward inclusion, years of teaching experience, school type, and access to resources. Only the marginal interaction effect noted earlier with years of teaching experience was found. This one finding suggested that teachers with less experience, with 10 years or fewer of teaching experience, saw accommodations for a student with an intellectual or physical disability as more desirable than for a students with a behavioral disability. More experienced teachers, with more than 10 years of teaching experience, saw making accommodations as equally desirable for students with all types of disabilities. Each type of disability has its unique set of challenges. A student with a physical disability may struggle with mobility and engagement in classroom activities, a student with an intellectual disability may struggle with comprehension and communication, and students with behavioral disabilities may struggle with emotional regulation and disruptive behavior. Previous research indicated that teachers with more experience had shown to have higher levels of behavior management self-efficacy than teachers with less experience (Stenger,

Tollefson, & Fine, 1992) and therefore may have felt more capable of handling the challenges presented by students with any type of disability.

Influences of School Type

The second research question addressed the relationship between the type of school where teachers were employed and their attitudes toward making accommodations for students with disabilities. Previous research (Jordan et al., 2009) had shown that teachers' attitudes were greatly influenced by their school's practices and policies, suggesting that a difference may exist between the attitudes of teachers employed by different types of schools. All of the teachers in this study were employed at public schools that receive state funding, follow state mandated curricular scope and sequencing, and are free for eligible students. However, the eight public schools included in this study could be categorized into two groups; magnet and charter schools and traditional public schools. The magnet schools have a specific curricular focus in addition to state requirements, receive additional funding from the state, and admit students from many surrounding, and typically economically diverse communities. This study included a magnet school with a special curricular focus on multiculturalism and a magnet school with a focus on early elementary school inclusion. A charter school is similar to a magnet school in that it receives additional public funding; however the administration, teachers, and parents, rather than the state, collectively manage the curriculum and financial decisions. The charter school included in this study was grouped with the magnet schools because of its emphasis on the educational inclusion of

students with disabilities. Traditional public schools were schools that identified with one specific school district and only admitted students from that district.

Results from this study indicated that the type of school where teachers' were employed affected their attitudes toward accommodations; specifically how beneficial they believed inclusion was for students without disabilities in the classroom. Teachers who were employed at magnet or charter schools rated accommodations as more beneficial for students without disabilities than did teachers employed at traditional public schools. This difference in attitudes may be because teachers with more positive attitudes toward inclusion and accommodations may be more likely to apply to and get hired at schools with a greater focus on inclusion.

To further explore teachers' attitudes toward inclusion, accommodations were categorized into three types: environmental/classroom management, instructional, and social/emotional accommodations. Results indicated that teachers' perceptions of accommodation desirability and feasibility did not vary over school or accommodation type. However, teachers employed at magnet or charter schools saw more benefits for the students without disabilities in making instructional and social/emotional accommodations for students with disabilities than did teachers employed at traditional public schools. There was no difference in teachers' attitudes toward benefits of making environmental/classroom management accommodations based on school type. Previous research (Rapp, 2005) suggested that school systems that successfully implement inquiry-based learning environments were more beneficial for including students with unique

learning needs, regardless of disability type, than are school systems that did not adopt the inquiry-based learning approach. An inquiry-based learning environment is student-centered and focused around student discovery of content rather than teacher-centered instruction of content. Teachers at the magnet and charter schools had greater opportunities to practice inquiry-based instruction because of their increased access to funding, resources, and support staff (such as math and reading coaches that instruct about the most recent, empirically-based, theoretical pedagogies available) than did teachers at traditional public schools. Teachers at traditional public schools may be more bound to traditional pedagogies and less likely to adapt to new theories, or see the benefits of making instructional or social/emotional accommodations.

It is important to note that the teachers in this study typically held positive views toward inclusion and making classroom accommodations, suggesting that teachers understand the benefits of inclusion for students with disabilities. However, little research had been done on the perceived benefits of specific accommodations for children without disabilities in the classroom. Some of the benefits for students with disabilities were that inclusive curriculums were made accessible to a variety of different learners through accommodations (Kemp & Carter, 2000; McDonnell et al., 1997), increased time is spent on the learning process to supplement instruction regarding content (Hutzler et al., 2002; Rapp, 2005), and students with disabilities experienced unique social experiences they would not otherwise have in a segregated classroom. So, even though accommodations were specifically designed for students with disabilities,

students *without* disabilities can still benefit from them. This fact was appreciated by teachers in the present study, especially those who worked in schools with a strong inclusion philosophy. Previous research had also shown that students with increased positive contact (Barr & Bracchitta, 2008; Siperstein, Parker, Bardon & Widaman, 2007; Waldron & McLeskey, 2010) and awareness of disabilities (Favazza, Phillipsen, & Kumar, 2000; Krahe & Altwasser, 2006) had more positive attitudes toward their peers with disabilities than did students without such positive contact, suggesting that students without disabilities also socially benefited from the inclusion of students with disabilities.

Teachers from these two school types may differ in their attitudes toward the benefits of making accommodations for students without disabilities in the classroom because of their perceived access to resources or their general attitudes toward inclusion. These factors were examined in the last research question because previous research suggested that teachers' perceived access to additional resources was related to their attitudes toward inclusion (Avramidis et al., 2000; Kemp, 2003; McNally, Cole, & Waugh, 2001). It has also been shown that teachers with more positive general attitudes toward people with disabilities were more likely to support inclusion and were more likely to be effective in the classroom through the establishment of adaptations and support of accommodations (Avramidis et al., 2000; Barr & Bracchitta, 2008; Cook, 2001; Jordan et al., 2009) than were teachers without such attitudes.

Influences of General Attitudes and Access to Resources

The final research question examined teachers' attitudes toward making accommodations based on other factors, such as general attitudes toward inclusion and perceived access to resources. Analyses revealed that teachers' general attitudes toward inclusion had a notable effect on their evaluations of specific accommodations for students with disabilities. Correlational analyses revealed that self-reported access to additional inclusion support resources also had an effect on their attitudes toward making accommodations, although a more modest one.

General Attitudes toward Inclusion. There was a significant relationship between elementary school teachers' general attitudes toward inclusion and their attitudes toward making accommodations in a general education classroom. Results suggested that teachers with positive attitudes toward inclusion saw making accommodations as more desirable, feasible, and especially beneficial for students without disabilities compared to teachers with less positive attitudes. This finding implied that teachers with more positive attitudes toward inclusion were more likely to make effective accommodations in their general education classrooms that were beneficial for students with and without disabilities than was true of teachers without such attitudes. The largest difference was how beneficial they believed accommodations were for students without disabilities. This finding suggested that teachers with an increased understanding and awareness of inclusion held more positive views toward the benefits of inclusion for all students (Waldron & McLeskey, 2010) than did teachers without this understanding,

which implied that more knowledgeable teachers would then be more effective educators in the classroom (Jordan et al., 2009).

Correlational analyses showed relations between teachers' positive attitude toward inclusion and their attitudes toward accommodation desirability, feasibility, and benefit for students without disabilities. The strongest relationships were with how feasible and beneficial they believed it was to make accommodations. Only a moderate relationship was shown between teachers' general attitudes and their desirability to make accommodations. It may be that all teachers have some understanding of the benefit of accommodations for children with disabilities but that only those with a stronger inclusion philosophy saw accommodations as feasible or as beneficial for students without disabilities. It is also possible that teachers with more positive general attitudes toward inclusion found ways to make accommodations effective in the classroom than teachers with less positive general attitudes were because of their level of commitment.

Previous research done by Jordan et al. (2009) examined some of the qualities teachers needed to be an effective inclusive educator. Jordan et al. (2009) demonstrated that teachers who believed it was their responsibility to establish an accessible learning environment for all students, including those with disabilities, were overall more effective educators than were teachers without this belief. Jordan et al. (2009) also found that teachers who held the epistemological belief that disability was an incremental characteristic and who understood the praxis between students' malleable knowledge and teachers' instruction were more effective in an inclusive classroom. Lastly, Jordan et al.

(2009) examined teacher preparations for educating in an inclusive setting and found that teachers' level of preparation depended on the specific school and school district.

Access to Additional Inclusion Resources. A modest relationship was found between teachers' self-reported access to additional inclusion resources and how feasible they believed it was to make accommodations in a general education classroom. Teachers' access to resources was predicted to have a strong correlation with teachers' attitudes toward accommodations because previous research had shown that the more supported teachers felt, the more effective they were in an inclusive environment (Jordan et al., 2009; Praisner, 2003; Rankin et al., 1999). Instead, a moderate relationship was found and only between perceptions of accommodation feasibility and extent of resources. Higher self-reported access to resources was related to stronger beliefs that the suggested accommodations were feasible. Resources were not related to accommodation desirability or benefit to students without disabilities. This finding suggested that teachers might endorse making accommodations and view them as beneficial to all students, regardless of their perceived access to resources; however, actual implementation of these accommodations was related to their access to additional resources. Further examination of accommodation type suggested that access to resources was most related to feasibility of instructional accommodations. Teachers may feel that it takes a greater extent of resources to make instruction accommodations feasible in their classroom, than it does for environmental or social/emotional accommodations.

Implications

All public schools are mandated by law to make education accessible for all students through the implementation of necessary accommodations to include students with disabilities; however the specific accommodations a child may get varies by school. As shown in this study, and previous research, many factors such as teaching experience, access to resources, and attitudes toward people with disabilities and inclusion greatly influenced the effectiveness of an inclusion program (Avramidis et al., 2000). For schools that are working toward improving and strengthening their inclusive practices, the findings of this study are important to consider.

The type of disability was not shown to have an effect on teachers' attitudes. This finding suggested that although the inclusion of a student with a disability was a unique experience for that individual, teachers did not believe that disability type was relevant to their considerations of the specific accommodations examined in this study. Carefully controlling for level of behavioral disruption may have influenced this finding. A clear effect was shown for teachers' general attitudes toward inclusion. Teachers with strong positive attitudes toward inclusion reported accommodations to be more desirable, and especially more feasible and beneficial to students without disabilities. These findings suggested that teachers with strong inclusion philosophies from their education or from working at schools that help them appreciate the value of inclusion for the entire school community better understand and appreciate the benefits of inclusion for both students with and without disabilities than did other teachers. These teachers may be more

effective in the classroom because they viewed the accommodations they were making to be beneficial to all. Teachers who did not view inclusion as beneficial for students without disabilities may have been more likely to view making accommodations as an additional requirement that detracts from the rest of the class's academic and social experience (Jordan et al., 2009). School districts that seek to improve their inclusive practices should focus on raising awareness among faculty and staff concerning the benefits of inclusion for students without disabilities as well.

Results from this study demonstrated that teachers employed at the magnet or charter schools had more positive attitudes toward inclusion in general than did teachers employed at traditional public schools. These magnet or charter school teachers also indicated that they saw making accommodations for students with disabilities as especially beneficial for the students without disabilities in the classroom, than did the teachers employed at the traditional public schools. These teachers did not, however, report having a greater extent of resources. Together, these findings implied that although access to resources did matter when implementing a successful inclusion program, it might be more effective to increase teachers' and staffs' awareness of inclusive philosophies and practices.

Limitations

The purpose of this research was to compare teachers' attitudes toward making accommodations for students with an intellectual, physical, or behavioral disability. The finding that disability type did not affect teachers' attitudes toward inclusion and making

accommodations may have occurred because teachers did not notice the manipulation of disability type, although a fair amount of detail was provided. It would have been beneficial to include a manipulation check, and to explore other ways in which teachers may have evaluated the target children differently by disability type. For example, teachers' attitudes may have been affected by the typical disruptive behaviors specific to disability type, details regarding common accommodations made for each disability type, or medical related issues that may arise due to disability type.

The three vignettes in this study described a student with a specific disability, for example Down syndrome, spina bifida, and ADHD. It is possible that the participants in this study had varying levels of understanding about people with these types of disabilities, as reflected in the variety of positions represented by the participants, and that affected their ratings of accommodations. Knowing more about each participant's knowledge of and experience with the type of disability they rated would have been helpful. These types of disabilities also have a wide range of severity. The vignettes described students with a moderate level of impairment, but teachers may not have been familiar with what a moderate level of severity looks like. For example, if teachers had only been in contact with a student with severe ADHD, that limited experience may have negatively influenced their ratings of making accommodations for a student possessing a disability of moderate severity.

It would also have been beneficial if more schools had been able to participate in this study, specifically a greater variety of magnet and charter schools. The sample of

teachers for this study was drawn from a variety of different schools; however the magnet and charter schools included in this study all had a specific focus on unique learners and individual differences. It is unclear if the differences between school types were due to the specific missions of these three magnet and charter schools in comparison to the traditional public schools, or if all magnet and charter schools practiced inclusive ideals. For example, teachers employed at a magnet school with a special interest in technology may have different attitudes toward accommodations than did teachers employed at a magnet school that focused on special education and inclusion. Greater variety in the distribution of traditional public schools included in the study would be interesting to consider, for example, it would be useful to compare urban vs. rural public schools, schools from different regions of the country, and possibly schools from different countries with different practices and philosophies about inclusion.

The participants in this study were almost entirely White women. It is possible that if a comparison sample of male elementary school teachers were available, differences in gender may have occurred. Unfortunately, finding a representative sample of male elementary school teachers is difficult because elementary school teaching is a female dominated profession. It would also have been beneficial to have a more racially diverse group of participants, rather than the vast majority identifying as White. Participants' ratings of the accommodations may also have been influenced by social desirability, leading to more positive responses in the surveys that did not reflect their actual attitudes toward inclusion.

Another limitation of this study may have been participant fatigue. As indicated in the results, some of the analyses were run with smaller samples due to incomplete information provided by participants. Removing 4 items in an effort to prevent fatigue shorted the AEI, however this study also adapted the scale to include a third subscale, addressing the benefits of making accommodations for students without disabilities. The types of accommodations included in the AEI may also have limited teachers' rating of the accommodations. The scale, designed by Schumm and Vaughn (1991), may not have included more recent accommodations that have become widely accepted in elementary education. For example, special education law now mandates three tier intervention programs, which utilizes an interdisciplinary team of specialists to work together to provide students with extra help in the classroom, minimizing the amount of time students are pulled out of the general classroom.

Future Directions

Future research could explore the various types of inclusion programs that different schools practice and the types of interventions that have been shown to be effective. Schools need to have specific examples of what they can do to improve their inclusion policies, in a manageable and cost effective manner. It would be interesting to look more closely at the specific differences that exist between the inclusion policies at the magnet or charter schools studied, compared to the policies of traditional public schools. Specific factors such as increased professional development concerning students with disabilities or improving training programs for how to make accommodations

successful and beneficial for all students in the classroom could significantly improve school systems' inclusive policies.

Beyond providing teachers with additional information concerning inclusion and accommodations for students with different disabilities, a future study could be based on behavioral observations in inclusive classrooms of students with different types of disabilities. Even after rating accommodations as highly feasible in a general education classroom, teachers may still struggle with making accommodations effective on a daily basis in the classroom. Although this study did not find that differences in attitudes are affected by disability type, it is possible that the implementation of these accommodations is influenced by disability type. A future study could observe how these accommodations are implemented and supported by the teacher and how the accommodations affect the students without disabilities in the classroom.

Based on the findings in this study, key variables to consider in future research would include the school's inclusion policy, the preparation teachers, students, and staff experienced before entering an inclusive classroom, the effects accommodations had on students without disabilities in the classroom, the experience level of the teachers, and the extent of additional resources teachers had available to them.

Conclusion

This study set out to examine the attitudes of teachers toward the inclusion of students with different types of disabilities; however it ended up uncovering different factors that may be more important to the implementation and success of inclusive

programs: teacher attitudes and school philosophy. Teachers with positive attitudes toward inclusion in general rated accommodations as more desirable, feasible, and beneficial to all students, than did teachers with less positive attitudes. Teachers employed at schools with dominant inclusion policies rated inclusion as more beneficial for students without disabilities than did teachers employed at schools without a strong inclusion philosophy. In short, results indicated that disability type matters less than teachers' general attitudes toward inclusion and the specific inclusion policies of the school.

All children regardless of race, ethnicity, background, or ability have the right to receive an education and develop the skills they need to make an impact in our society, and it is the responsibility of our teachers to provide students with the tools they need to be successful, independent learners. The education of students with disabilities is one rooted in historical inequality and injustice. Once cast aside and segregated, students with disabilities now have a place in the American education system. Not only is inclusion beneficial for students with disabilities, but it is also beneficial for all students, staff, and teachers involved. An inclusion classroom accommodates all types of learners and fosters the strength and growth of each student, both socially and academically. In a learning environment that accepts children for their unique qualities, all students can benefit and prosper.

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disability on attitudes of school children toward friendship and helping. *The Journal of Psychology*, 134, 343-345.

Appendix A

Consent for Research Participation

I hereby consent to participate in Sarah Holland's research concerning elementary school teachers' attitudes toward including students with disabilities in a general education classroom.

I understand that this research will involve completing a series of questionnaires that will take approximately 15 minutes to complete.

I am aware that the superintendent/director has approved this study and granted permission for the researcher to contact teachers by email to invite their participation.

I understand that my participation in this research has the potential to deepen our understanding of the effects of inclusion in general elementary school classrooms.

I have been told that there are no known risks or discomforts related to participating in this research.

I have been told that Sarah Holland can be contacted at sarah.holland@conncoll.edu, or her faculty supervisor, Audrey Zakriski, at alzak@conncoll.edu, if I have any questions concerning the purpose of procedures of this study.

I understand that I may decline from answering any questions as I see fit and that I may withdraw from the study without penalty at any time.

I understand that all the information I provide, while participating in this research, will be identified with a code number and not with my name.

I understand that this study is not meant to gather information about specific individuals and that my responses will be combined with other participants' data for the purpose of statistical analysis. I consent to publication of the study as long as the identity of all participants is protected.

I understand that Connecticut College Human Subjects Institutional Review Board (IRB) had approved this research. Concerns about any aspect of this study may be addressed to Professor Jason Nier, Chairperson of the Connecticut College IRB (860-438-5057).

I am at least 18 years of age and I have read these explanations and assurances and voluntarily consent to participating in this research about attitudes of elementary school

teachers toward the inclusion of students with disabilities in a general education classroom.

Electronic Signature _____

Date _____

Appendix B

Attitude Inventory – Revised

Based on the definition provided below, please respond to the following questions.

A person with a disability includes but is not limited to a person with an intellectual disability, physical disability, or behavioral disability.

1. School officials should not place students who have a disability and students who do not have a disability in the same classes.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

2. We should integrate people who have a disability and who do not have a disability into the same neighborhoods.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

3. It is a good idea to have separate after-school programs for students who have a disability and students who do not have a disability.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

4. Integrating students who have a disability and who do not have a disability into the same preschool classes should not be attempted because of the turmoil it would cause.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

5. Having people who have a disability and people who do not have a disability work at the same jobsite will be beneficial to both.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

6. Assigning high school students who have a disability and who do not have a disability to the same classes is more trouble than it is worth.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

7. The student who has a disability should be integrated into general education classrooms in school.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

Appendix C

Vignette of a Student with a Moderate Intellectual Disability

Consider the following student and respond to the subsequent questions with her in mind.

Mary is an 8-year-old girl who will be entering your second grade in the fall. She was diagnosed with Down syndrome and has been labeled as having a moderate intellectual disability. She has a slightly flattened face, is slightly overweight, and wears corrective glasses, all of which are characteristic of the disability. Mary has two older brothers who do not have a disability. One of them is still in the same elementary school as Mary, and the other is enrolled in the public middle school. Mary's family is very supportive and accommodates her unique needs. Her parents fought hard to have Mary included in the public school system, and they continue to be active participants in the creation and application of her Individualized Education Plan (IEP).

Mary has an upbeat attitude and is naturally charismatic. The other kids in her grade get along with her; however Mary has no close friends. She is capable of understanding what is going on in the classroom and likes to participate in activities that interest her, such as writing, music, and art. Mary is also very stubborn and does not like to participate in activities that do not interest her. When she gets irritated she requires additional attention to get her engaged. At times she can be easily redirected, but at other times redirecting her can be a challenge. She can clean up after herself and organize her own folders and materials after classroom routines have been well established. She can count by ones and is working on counting by fives and tens. She has started working on basic addition and subtraction. During reading time she enjoys looking at books. She has strong concepts of print and has been working on sight word recognition.

Appendix D

Vignette of a Student with a Moderate Physical Disability

Consider the following student and respond to the subsequent questions with her in mind.

Mary is an 8-year-old girl who will be entering your second grade in the fall. She was diagnosed with spina bifida and has been labeled as having a moderate physical disability. She has deformed hip and knee joints and paralysis from her lower back down, which requires her to use a wheelchair, all of which are characteristic of the disability. Mary has two older brothers who do not have a disability. One of them is still in the same elementary school as Mary, and the other is enrolled in the public middle school. Mary's family is very supportive and accommodates her unique needs. Her parents fought hard to have Mary included in the public school system, and they continue to be active participants in the creation and application of her Individualized Education Plan (IEP).

Mary has an upbeat attitude and is naturally charismatic. The other kids in her grade get along with her; however Mary has no close friends. She is capable of understanding what is going on in the classroom and likes to participate in activities that interest her, such as writing, music, and art. Mary is also very stubborn and does not like to participate in activities that do not interest her. When she gets irritated she requires additional attention to get her engaged. At times she can be easily redirected, but at other times redirecting her can be a challenge. She can clean up after herself and organize her own folders and materials after classroom routines have been well established. She can count by ones and is working on counting by fives and tens. She has started working on basic addition and subtraction. During reading time she enjoys looking at books. She has strong concepts of print and has been working on sight word recognition.

Appendix E

Vignette of a Student with a Moderate Behavioral Disability

Consider the following student and respond to the subsequent questions with her in mind.

Mary is an 8-year-old girl who will be entering your second grade in the fall. She was diagnosed with Attention Deficit Hyperactive Disorder (ADHD) and has been labeled as having a moderate behavioral disability. She is restless, fidgety, and talks excessively, all of which are characteristic of the disability. Mary has two older brothers who do not have a disability. One of them is still in the same elementary school as Mary, and the other is enrolled in the public middle school. Mary's family is very supportive and accommodates her unique needs. Her parents fought hard to have Mary included in the public school system, and they continue to be active participants in the creation and application of her Individualized Education Plan (IEP).

Mary has an upbeat attitude and is naturally charismatic. The other kids in her grade get along with her; however Mary has no close friends. She is capable of understanding what is going on in the classroom and likes to participate in activities that interest her, such as writing, music, and art. Mary is also very stubborn and does not like to participate in activities that do not interest her. When she gets irritated she requires additional attention to get her engaged. At times she can be easily redirected, but at other times redirecting her can be a challenge. She can clean up after herself and organize her own folders and materials after classroom routines have been well established. She can count by ones and is working on counting by fives and tens. She has started working on basic addition and subtraction. During reading time she enjoys looking at books. She has strong concepts of print and has been working on sight word recognition.

Appendix F

Adaptation Evaluation Instrument

Please rate how desirable (how much you would like to have the adaptation occur for Mary in your classroom), how feasible (how easily the adaptation could occur for Mary in your classroom) and how beneficial (how valuable the adaptation is for children without disabilities in your classroom).

Each adaptation is for including Mary in a general education classroom. Rate each adaptation on a scale from 1, being not at all, to 7, being very much.

1. Respect Mary as an individual with differences, e.g., be aware of her capabilities and problems and make exceptions accordingly; encourage all students to respect Mary

Desirability:

1 2 3 4 5 6 7

Feasibility:

1 2 3 4 5 6 7

Beneficial for students without disabilities:

1 2 3 4 5 6 7

2. Establish routines appropriate for including Mary

Desirability:

1 2 3 4 5 6 7

Feasibility:

1 2 3 4 5 6 7

Beneficial for students without disabilities:

1 2 3 4 5 6 7

3. Adapt classroom management strategies that are effective for including Mary

Desirability:

1 2 3 4 5 6 7

Feasibility:

1 2 3 4 5 6 7

Beneficial for students without disabilities:

1 2 3 4 5 6 7

4. Provide reinforcement and encouragement

Desirability:

1 2 3 4 5 6 7

Feasibility:

1 2 3 4 5 6 7

Beneficial for students without disabilities:

1 2 3 4 5 6 7

5. Establish a personal relationship with Mary

Desirability:

1 2 3 4 5 6 7

Feasibility:

1 2 3 4 5 6 7

Beneficial for students without disabilities:

1 2 3 4 5 6 7

6. Help Mary to find appropriate ways to deal with her feelings

Desirability:

1 2 3 4 5 6 7

Feasibility:

1 2 3 4 5 6 7

Beneficial for students without disabilities:

1 2 3 4 5 6 7

7. Communicate with inclusion facilitator

Desirability:

1 2 3 4 5 6 7

Feasibility:

1 2 3 4 5 6 7

Beneficial for students without disabilities:

1 2 3 4 5 6 7

8. Make adaptations for including Mary when planning for the long range

Desirability:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Feasibility:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Beneficial for students without disabilities:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

9. Make adaptations for including Mary when planning daily plans

Desirability:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Feasibility:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Beneficial for students without disabilities:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

10. Plan assignments and activities that allow Mary to be successful

Desirability:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Feasibility:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Beneficial for students without disabilities:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

11. Allot time for teaching learning strategies as well as content

Desirability:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Feasibility:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Beneficial for students without disabilities:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

12. Adjust physical arrangement of the room for including Mary (e.g., modified seating arrangement)

Desirability:

1 2 3 4 5 6 7

Feasibility:

1 2 3 4 5 6 7

Beneficial for students without disabilities:

1 2 3 4 5 6 7

13. Adapt general classroom materials for including Mary

Desirability:

1 2 3 4 5 6 7

Feasibility:

1 2 3 4 5 6 7

Beneficial for students without disabilities:

1 2 3 4 5 6 7

14. Use alternative materials for including Mary

Desirability:

1 2 3 4 5 6 7

Feasibility:

1 2 3 4 5 6 7

Beneficial for students without disabilities:

1 2 3 4 5 6 7

15. Use computers to enhance Mary's learning

Desirability:

1 2 3 4 5 6 7

Feasibility:

1 2 3 4 5 6 7

Beneficial for students without disabilities:

1 2 3 4 5 6 7

16. Monitor the understanding of directions and assigned tasks

Desirability:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Feasibility:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Beneficial for students without disabilities:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

17. Monitor Mary's understanding of concepts presented in class

Desirability:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Feasibility:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Beneficial for students without disabilities:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

18. Provide individual instruction for including Mary

Desirability:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Feasibility:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Beneficial for students without disabilities:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

19. Pair Mary with a classmate

Desirability:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Feasibility:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Beneficial for students without disabilities:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

20. Involve Mary in whole class activities

Desirability:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Feasibility:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Beneficial for students without disabilities:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

21. Involve Mary in small class activities

Desirability:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Feasibility:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Beneficial for students without disabilities:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

22. Provide extra time for including Mary

Desirability:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Feasibility:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Beneficial for students without disabilities:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

23. Adapt pacing of instruction

Desirability:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Feasibility:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Beneficial for students without disabilities:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

24. Provide students with ongoing feedback about performance

Desirability:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Feasibility:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Beneficial for students without disabilities:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

25. Adapt scoring/grading criteria for including Mary.

Desirability:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Feasibility:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Beneficial for students without disabilities:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Appendix G

Demographics Questionnaire

Respond to the answer that best describes you.

1. Gender

Female

Male

2. Age

Under 20 years old

20-29 years old

30-39 years old

40-49 years old

50-59 years old

Over 60 years old

3. Race

American Indian or Alaskan Native

Asian or Pacific Islander

Black

White

Other

4. Ethnicity

Hispanic Origin

Not of Hispanic Origin

5. In order to provide summary information for each school participating in the study, please let us know what school you currently work at.

The Regional Multicultural Magnet School

The Friendship School

The Integrated Day Charter School

Samuel Huntington Elementary School

Thomas W. Mahan Elementary School

John M. Moriarty Elementary School

John B. Stanton Elementary School

Uncas Elementary School

Veterans Memorial Elementary School

Wequonnoc Elementary School

6. What is your position within the school?
- General Education Teacher
 - Instructor/Assistant Teacher
 - Special Instructor/Elective Teacher (i.e., Art, Library, Music, etc.)
 - Support Services (i.e., OT, Speech and Language, Literacy/Math Coach, etc.)
7. What grade level(s) do you primarily work with? Please select all that apply.
- Pre-Kindergarten
 - Kindergarten
 - First Grade
 - Second Grade
 - Third Grade
 - Fourth Grade
 - Fifth Grade
 - Sixth Grade
8. Years of teaching experience
- 1-5 years
 - 6-10 years
 - 11-15 years
 - 16-20 years
 - 21-25 years
 - 26-30 years
 - 31+ years
9. Are you currently certified to teach special education?
- Yes No
10. Do you currently teach children with disabilities in your classroom?
- Yes No
11. Years of teaching experience in a classroom with students with disabilities
- 1-5 years
 - 6-10 years
 - 11-15 years
 - 16-20 years
 - 21-25 years
 - 26-30 years
 - 31+ years

Appendix H

Debriefing Statement

Thank you for participating in this research regarding attitudes of elementary school teachers toward the inclusion of students with disabilities. In this study, we are comparing elementary school teacher's attitudes toward including either a student with a moderate intellectual, physical, or behavioral disability. We are also examining the relationship between teachers' general attitudes toward inclusion and their attitudes toward making adaptations in their general education classrooms to include students with a specific form of disability that is moderately impairing. Participants' desirability and perceived feasibility of making a classroom adaptation were considered as well as how beneficial teachers' believed each adaptation to be for the general education students. To the researchers' knowledge, no previous study has compared the attitudes of elementary school teachers toward including either a student with an intellectual, physical, or behavioral disability. Additional variables are considered in the present study such as teacher experience level in an inclusive classroom, perceived level of support from the school system, and gender.

This study is ongoing. For this reason, please do not share the information in this debriefing statement or in the questionnaires you completed with other teachers who may participate in this study. A summary of results will be made available to participating schools when the study is completed.

If you have any questions or concerns about the manner in which this study was conducted, please contact the IRB chairperson, Professor Jason Nier at (860) 439-5057.

If you are interested in this topic and want to read the literature in this area, please contact the researcher, Sarah Holland at sarah.holland@conncoll.edu.

Listed below are two sources you may want to consult to learn more about this topic:

Rapp, W. H. (2005). Inquiry-based environments for the inclusion of students with exceptional learning needs. *Remedial and Special Education, 26*, 297-310.
doi:10.1177/07419325050260050401

Rose, R. (2001). Primary school teacher perceptions of the conditions required to include pupils with special educational needs. *Educational Review, 53*, 147-156.
doi :10.1080/00131910120055570

Appendix I

Letter of Request Sent to Superintendents, Principals, and Directors

Paul Carolan, Director
Regional Multicultural Magnet School
1 Bulkeley Place
New London, CT. 06320

October 19, 2010

Dear Mr. Paul Carolan,

My name is Sarah Holland and I am an Honors Student in the Psychology and Education departments at Connecticut College. I am currently student teaching in Kathy Auperin's Kindergarten classroom. I am very much in support of special education inclusion, and look forward to this opportunity to learn from the expertise in your district.

I am writing to ask for your support in my Honor's Thesis project. With your support I would then approach School Executive Director, Dr. Virginia Z. Seccombe, for formal district approval. My thesis examines the attitudes of elementary school teachers toward making classroom adaptations for students with a variety of disabilities. Audrey Zakriski, Associate Professor of Psychology of Connecticut College, is the academic supervisor for my project. My research has been approved by the Connecticut College Internal Review Board (IRB), which examines the integrity of proposed research projects.

As a current student teacher, I understand the time constraints of both teachers and administrators. For this reason, I have designed the survey to be short (15 minutes to complete) and easily accessible (online via SurveyMonkey). With superintendent permission, teachers would be contacted through email and asked to participate. Once they click the link to the study, they would be asked to sign an informed consent form that describes the study in more detail (without revealing the specific hypothesis of the study), read a brief description of a child with special needs, and respond to a brief series of questions. Upon completion, they would receive additional information about the study as well as an opportunity to enter a chance to win a \$25 bookstore giftcard, to thank them for their participation.

The intent of my research is to compare the attitudes of general education elementary school teachers toward making classroom adaptations to include either a student with a moderate intellectual, physical, or behavioral disability. Teachers will complete a general attitude toward inclusion scale, and then rate the desirability and feasibility of several

classroom adaptations, as well as how beneficial they believe the adaptation would be for the general education students in their classroom. Finally teachers will be asked to answer background questions, including questions about the level of support they personally feel to include students with disabilities in their classrooms, how many years they have been teaching, and if they have even taught in an inclusive classroom (see attached).

My goal in conducting this research is to gain insight into which classroom adaptations teachers perceive to be more realistic and constructive, and which disabilities teachers feel most capable accommodating in a general education classroom. I will gladly share my findings with your district, as they will provide valuable information about the attitudes of New London teachers toward inclusive special education.

I would greatly appreciate you permitting me to solicit teacher participation in the Regional Multicultural Magnet School for my honors study. If you have any questions concerning my research, please contact me at sarah.holland@conncoll.edu or my faculty advisor, Professor Audrey Zakriski, at (860) 439-5134 or alzak@conncoll.edu.

Enthusiastically,

Sarah Holland
Honors Student in Psychology and Education

Audrey Zakriski
Associate Professor of Psychology

Appendix J

Sample Email for Directors/Principals to Send Out to Staff Announcing Survey

Greetings,

My name is Sarah Holland and I am a senior at Connecticut College. As part of my honors thesis in Psychology and Elementary Education, I will be sending out a survey for you to complete at your convenience in the next two weeks. My research addresses the inclusion of students with disabilities in the general education classroom. You will receive the link, via email, on February 14th and the last day to complete the survey will be on Friday, March 11th. Upon completing the survey, you will have the opportunity to enter a contest to win a \$25 gift certificate to Barnes and Nobles; two gift certificates are available. You can also receive a copy of the results, upon request.

Your participation is greatly appreciated.

Thank you,

Sarah Holland
Connecticut College '11

Appendix K

Sample Email Sent to Teachers to Launch Survey

Greetings,

My name is Sarah Holland and I am a senior at Connecticut College. Director Paul Carolan granted me permission to send you the following information.

As part of my honors thesis in Psychology and Elementary Education, I am sending out a survey for you to complete at your convenience in the next two weeks. My research addresses the inclusion of students with disabilities in the general education classroom. The link is provided below, please follow the directions provided. Due to winter break, the last day to complete the survey will be on Friday, March 11th. Upon completing the survey, you will have the opportunity to enter a contest to win a \$25 gift certificate to Barnes and Nobles bookstore; two gift certificates are available. You can also receive a copy of the results, upon request.

<http://www.surveymonkey.com/s/96CVG55>

If you have any questions concerning the survey, please feel free to contact my faculty advisor, Audrey Zakriski at (860) 439-5134 or alzak@conncoll.edu.

Your participation is greatly appreciated.

Thank you,

Sarah Holland
Connecticut College '11

Appendix L

Sample Reminder Email Sent to Teachers

Hello,

I would like to thank those of you who have already completed my survey online. For those of you who have not yet completed the survey, the link can be found below. I understand how busy you are during the beginning of March. A few moments of your time would be greatly appreciated.

<http://www.surveymonkey.com/s/96CVG55>

If you have any questions concerning the survey, please feel free to contact my faculty advisor, Audrey Zakriski at (860) 439-5134 or alzak@conncoll.edu. Have a wonderful day.

Thank you for your time,

Sarah Holland
Connecticut College '11

Appendix M

Sample Thank You Email

Good afternoon,

I would like to thank everyone from the Regional Multicultural Magnet School for participating in my research. I greatly appreciate you taking the time out of your busy day to complete my survey. I am currently in the process of analyzing my results. When my analysis is complete I will send a copy of my findings to Director Carolan, including specific data for your school compared to the other schools that participated. My research would not have been possible without your assistance, thank you again and I hope you all have fabulous ends of the year! The winner of the gift certificate will be contacted next week.

Thank you for your time,

Sarah Holland
Connecticut College '11