THE EFFECT OF A SINGLE INTRODUCTORY SPECIAL EDUCATION COURSE ON THE ATTITUDES OF PROSPECTIVE TEACHERS TOWARD INCLUSION

A dissertation submitted to the Kent State University College of Education, Health, and Human Services in partial fulfillment of the requirements for a degree of Doctor of Philosophy

By

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In a study conducted at a Midwestern state university, The Teachers’ Attitudes Toward Inclusion Survey (TATIS-P) was used to investigate the impact of an introductory special education course on the attitudes of 207 prospective general and special education teachers about the inclusion of students with mild to moderate disabilities in general education classrooms.

After completing an introductory special education course, the overall attitudes of prospective general and special education teachers towards the inclusion significantly improved. Further analysis of the three constructs that comprise the TATIS-P revealed a significant change among prospective general and special education teachers’ attitudes toward students with mild to moderate disabilities in inclusive settings. Additionally, prospective special education teachers’ beliefs about the efficacy of inclusion significantly improved after completing the introductory special education course. These findings are important because students with disabilities in inclusive settings experience increased meaningful participation when their teachers have positive attitudes toward inclusion. In turn, greater participation in general education classrooms correlate with higher levels of engagement, achievement, and social adjustment of students with disabilities at school.
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CHAPTER I

INTRODUCTION

Teacher attitudes represent a critical variable in the successful inclusion of students with disabilities in general education classrooms (Berry, 2010; Cullen & Noto, 2007; Garriott, Miller, & Snyder, 2003; Gelheiser & Meyers 1996; Lambert, Curran, Prigge, & Shorr, 2005; Martinez, 2003; McHatton & McCray 2007; Silverman, 2007; Sze, 2009; Van Laarhoven, Munk, Lynch, Bosma, & Rouse, 2007). Teachers’ attitudes predict and guide their behavior (Cook & Cameron, 2010), drive important decisions and classroom practices (de Betterncourt, 1999; Cook, 2001; Fazio & Zanna, 1978; Garriott, et al., 2003; Nespor, 1985; Renzaglia, Hutchins, & Lee, 1997) and impact student achievement (Robbins, 2010). A synthesis of the literature suggests particular attitudes may be more powerful in predicting teacher behavior (Cullen & Noto, 2007). Teachers who are successful at inclusion believe students with disabilities can learn and achieve in general education classrooms, have confidence they possess the skills needed to meet the needs of diverse learners (Avramidis & Norwich, 2002), and have a willingness to collaborate with colleagues as equal partners (Silverman, 2007). Teachers with these attitudes are more likely to develop teacher–student relationships that promote learning at each student’s level of engagement, and adapt content, methodology, and/or delivery of instruction to address the unique needs of each student, including students with disabilities (Jordan, Schwartz, & McGhie-Richmond 2009; Sharma, Forlin & Loreman 2008). General and special education teachers who hold positive attitudes toward
inclusion share a strong belief in the principles and purposes of inclusion, share the responsibility for the successful implementation of inclusion, and engage in cooperative decision making as they work toward their shared commitment to student growth (Ryan, 2010; Worrell, 2008). The ultimate benefit is students with disabilities in successful inclusionary settings demonstrate increased academic achievement, self-confidence and self-esteem (Robbins, 2010; Rosenzweig, 2009).

Historically, general and special education teachers were trained to teach different groups of students using different curricula, methods, and assessment measures, creating a divide between general and special education (Frattura & Topinka, 2006). Prior to No Child Left Behind (NCLB, 2001) and the Individuals with Disabilities Education Improvement Act (IDEA 2004), participation in general education classrooms was perceived as a privilege, and students with disabilities were expected to adapt to the general education classroom rather than the teachers adapting to the student (McLeskley, 2007). General education teachers typically did not receive training in their teacher education programs for working with students with disabilities and assumed limited, if any, responsibility for educating students with disabilities. Conversely, special education teacher training focused on teaching students with specific disabilities and included limited preparation for teaching content area subjects.

As early as the 1970’s, legislative mandates encouraged the mainstreaming of students with disabilities into general education activities. The passage of The Education for All Handicapped Children Act (1975), the Regular Education Initiative (Will, 1986), No Child Left Behind (NCLB 2001), and the reauthorization of IDEA (2004) lead to
substantial increases in the number of students with disabilities included in general education classrooms. Current legislative mandates have a tremendous impact on the education of students with disabilities and the teachers who serve these students. Most students with disabilities are expected to take standard tests of academic achievement and achieve at a level equal to that of students without disabilities (NCLB, 2001). According to IDEA (2004), to the maximum extent appropriate, children with disabilities, are educated with children who are not disabled, and special classes, separate schooling, or other removal of children with disabilities from the regular education environment occurs only when the nature or severity of the disability of a child is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily. Furthermore, students with disabilities must receive the supports and accommodations needed to assure involvement and progress in the general curriculum (IDEA, 2004). This requires a closer alignment of curriculum, methods and assessment measures between general and special education and a shift in the roles and responsibilities general and special education teachers have for assuring meaningful involvement and progress in the general curriculum (Fennick & Liddy, 2001).

The increased number of students with disabilities who spend all or the majority of their school day in general education classrooms, requires increased communication, collaboration and cooperation between general and special educators (Titone, 2005). Special education teachers are spending less time teaching students with disabilities in special education classrooms and more time engaged in cooperative teaching and serving as consultants to general education teachers (Fennick & Liddy, 2001; Turner, 2003;
Wigle & Wilcox, 2003). These new roles often result in feelings of displacement and confusion over exactly what role they are to play in this new inclusive classroom environment (Kelley, 2010). General education teachers now have more direct contact with, and responsibility for, students with disabilities. This demands an increased understanding of various types of disabilities, appropriate curricular and instructional modifications, interaction with students with disabilities in the classroom (Turner, 2003), and coming to terms with the idea of shared ownership of what was formerly their own classroom (Kelley, 2010). To prepare teachers for their new and expanded roles and responsibilities, teacher preparation programs must assure all teachers are trained to collaboratively provide instruction to diverse populations, including students with disabilities (Higher Education Opportunity Act, Pub. L. No. 110-315, 2008). The special education standards of the National Council for the Accreditation of Teacher Education (NCATE) state: professional education programs should prepare all school personnel to contribute to the education of exceptional learners (Turner, 2003).

Teacher preparation programs now incorporate the development of skills, knowledge and dispositions needed for successful inclusionary practices as a part of their curriculum. A variety of models have been implemented to prepare prospective teachers for inclusion. Some teacher preparation programs have elected to embed/infuse instructional and curricular techniques appropriate for diverse learners into all relevant courses (Cameron & Cook, 2007; Cook, 2002; Voltz, 2003). Other teacher preparation programs have established dual certification programs. Shippen, Crites, Houchins, Ramsey, & Simon, (2005) concluded that dual training in general and special education may produce
educators who are more willing and capable to deal with their students’ diverse learning needs (Shippen, et al., 2005). Although a variety of teacher preparation models exist, the most prevalent model used to prepare prospective general education teachers for working with students with disabilities is requiring one disability focused course (Harvey, Yssel, Bauserman, & Merbler, 2010; Holland, Detgen, & Gutekunst, 2008; Voltz, 2003). Since prospective teachers will be major contributors to the success or failure of inclusion for many years to come, it is critical for teacher education programs to cultivate positive attitudes toward inclusion (Brown, Welsh, Hill & Cipko, 2008; Cullen & Noto 2007; Shade & Stewart, 2001; Sharma, et al., 2008). Despite the importance of attitudes, it is a not a dimension of teaching that is either typically or rigorously addressed in teacher education programs (Jordan et al., 2009).

There are a limited number of studies that assess the extent to which an introductory special education course effects the attitudes most closely associated with the collaborative provision of supports and accommodations for students with disabilities in general education classrooms. This study will investigate the impact of an introductory special education course on the attitudes of undergraduate prospective general and special education teachers by comparing pre/post survey responses to questions associated with attitudes toward inclusion. An introductory special education course is typically the only required course related to students with disabilities for prospective general education teachers, and may be their only formal exposure to students with disabilities during their teacher preparation. As such, assessing the impact of an introductory special education course on the attitudes of prospective general education teachers is of particular
importance. Although the successful inclusion of students with disabilities is the responsibility of both general and special educators, inclusion impacts general and special education teachers differently. Therefore, the attitudes of prospective general and special education teachers will be examined separately.

The trend to educate an increasing number of students with disabilities in general education classrooms demands that general and special education teachers be prepared to assume the roles and responsibilities needed for successful inclusion. Preparing all educators to teach students with disabilities is mandated by law and articulated in professional teacher standards. Requiring a single introductory special education course is the most prevalent preparation model. Cultivating positive attitudes is an essential aspect of this preparation. Empirical evidence is needed to evaluate whether the most common preparation model influences a variable so vital to the success of students with disabilities in general education classrooms. This study will provide such evidence.

**Problem Statement**

This is a quantitative study of the effect of an Introductory Special Education course on selective attitudes of undergraduate prospective general and special education teachers about the inclusion of students with mild to moderate disabilities in general education classrooms. Given the differential impact of inclusion on general and special education teachers, this study will examine the attitudes of general and special education majors separately.
Research Questions

1. Do attitudes of undergraduate prospective general education teachers change about the inclusion of students with mild to moderate disabilities in general education classrooms, after completing a required introductory special education course?

2. Do attitudes of undergraduate prospective special education teachers change about the inclusion of students with mild to moderate disabilities in general education classrooms, after completing a required introductory special education course?

3. Do attitudes about the inclusion of students with mild/moderate disabilities differ between prospective general and special education teachers enrolled in a required introductory special education course?

Hypotheses

Hypothesis 1

There will be no difference from pre to post in attitudes about the inclusion of students with disabilities of undergraduate prospective general education teachers enrolled in Introduction to Exceptionalities. $H_0: \mu_1 - \mu_2 = 0$

Hypothesis 2

There will be no difference from pre to post in attitudes about the inclusion of students with disabilities of undergraduate prospective special teachers enrolled in Introduction to Exceptionalities. $H_0: \mu_1 - \mu_2 = 0$
Hypothesis 3

There will be no difference in attitudes about the inclusion of students with disabilities between prospective undergraduate general education special education teachers enrolled in Introduction to Exceptionalities. \( H_0: \mu_1 = \mu_2 \)

Operational Definitions

1. Attitudes. The beliefs, emotions, and behaviors of an individual. In the context of this study, attitudes reflect the prospective teacher’s thoughts and feelings about inclusion (Kelley, 2010) as defined and measured by the total score on the Teacher’s Attitudes Toward Inclusion Scale (TATIS-P), the three TATIS-P Constructs (Perceptions, Confidence and Collaboration) and each of the 14 TATIS-P survey items.

Construct 1: Attitudes toward students with disabilities in inclusive settings (Perception). Questions in this construct were designed to measure respondents’ views regarding the effectiveness and efficiency of general education classrooms as the place (i.e. location) for educating students with mild to moderate disabilities.

Construct 2: Beliefs about the efficacy of inclusion (Confidence). Questions in this construct reflect the respondent’s confidence that students with mild to moderate disabilities can learn and teachers can promote academic and social skills in general education classrooms without requiring too much of the teacher’s time.

Construct 3: Beliefs about professional roles and responsibilities (Collaboration). Items in this construct measure respondents’ views about the benefits of team teaching and their willingness to participate in cooperative and/or consultative teaching models.
2. Cooperative teaching (co-teaching) is a model in which a special educator and general educator work together to teach a group of students who are predominantly non-disabled in the same classroom space as students who are identified as disabled and eligible for special education services (Scruggs, Mastropieri, & McDuffie, 2007).

3. Favorable. In the context of this study positive attitudes are synonymous with positive attitudes. Favorable attitudes are subjectively defined as ratings above neutral which are designated on the Teacher’s Attitudes Toward Inclusion Survey (TATIS-P) as neither agree or disagree (Cook, Cameron, & Tankersley, 2007).

4. Inclusion has two definitions. (noun and verb)
   
   A. Inclusion is access and involvement of students with disabilities in the general education curriculum with non-disabled peers. While inclusion is not a term used in federal regulations, it is a term that has been used to ensure the provision of services to students with disabilities in the Least Restrictive Environment (LRE) (Idol, 2006; Mastropieri & Scruggs, 2001).

   B. Inclusion is not a place, but a way of thinking and living together based on the belief that each individual is valued and belongs (Causton-Theoharis & Theoharis, 2008, Conner & Ferri, 2007).

5. Inclusion movement refers to the philosophical, legislative and research efforts that have influenced the increasing number of students with disabilities who are receiving their educational services, full or part-time, in a general education classroom (McLeskley, 2007).
6. Successful inclusion: Through the collaborative efforts of general and special education teachers, all students, regardless of their strengths or weaknesses, receive supports and accommodations that allow for full participation in the learning community and progress in their academic endeavors (Titone, 2005).

7. General Education Curriculum is defined by the content area standards established by each state (Federal Register Rules and Regulations, 2006).

8. Mild/Moderate Disabilities. The authors of the Teachers Attitudes toward Inclusion Scale (TATIS-P) use the following definition: “Under federal special education law, mild to moderate disabilities include Learning Disabilities; Hearing Impairments; Visual Impairments; Physical Handicaps; Attention Deficit Disorders; Speech/Language Impairments; and mild/moderate Emotional Disturbance, Mental Retardation, Autism, or Traumatic Brain Injury” (Cullen, Gregory, & Noto, 2010).

9. Prospective (preservice) general education teacher - Students seeking a teaching license in early childhood (elementary), middle childhood, adolescent (secondary) or multi-age (art, music, PE, foreign language, etc). (Ohio Department of Education http://education.ohio.gov/GD/Templates/Pages/ODE/ODEPrimary.aspx?page=2&TopicID=513&TopicRelationID=513)

10. Prospective (pre-service) special education teacher – Students seeking a teaching license to teach students with disabilities. The term special education teacher is synonymous with intervention specialist. Some states credential special education teachers to teach specific types of disabilities such as learning disabled, hearing impaired, etc. Other states maintain specific licensure for some types of disabilities
such as hearing and vision impaired, but the majority of special education teachers are licensed for: Early Childhood Intervention Specialist, Mild/Moderate Intervention Specialist or Moderate/Intensive Intervention Specialist (Ohio Department of Education)

http://education.ohio.gov/GD/Templates/Pages/ODE/ODEPrimary.aspx?page=2&TopicID=513&TopicRelationID=513
CHAPTER II
LITERATURE REVIEW

The ever increasing number of students with disabilities educated in general education classrooms requires a shift in the traditional roles and responsibilities of general and special education teachers. Cultivating positive attitudes of general and special educators toward inclusion as they assume these new roles and responsibilities has become a critical issue (Brown, et al., 2008). The purpose of this study is to examine the impact of an Introductory Special Education course on the attitudes of undergraduate prospective teachers toward inclusion. An understanding of the issues that have shaped the inclusion movement and influenced teacher’s attitudes toward inclusion provides a context for the current study. The following issues will be reviewed and discussed in detail:

1. The inclusion movement.

2. Teachers’ attitudes and how these attitudes influence teacher behavior and student outcomes.

3. Strategies for promoting attitudes that support and facilitate successful inclusion.

The Inclusion Movement

In 2010 approximately 81% of students with disabilities spent more than 40% of their school day in general education classrooms, compared to 27% in 1984-85 (U.S. Department of Education, 2010). Philosophical beliefs and legislative mandates provided momentum to the dramatic increase in the number of students with disabilities who spend
the majority of their school day in general education classrooms. This increase, known as the inclusion movement, is not marked by distinct periods with discrete beginning and ending points. Changes in who is served, where they are served, their instructional curriculum, and who serves them have evolved over the past four decades (McLeskey, 2007). Appendix A outlines and summarizes some of the changes that define and frame the inclusion movement.

**Philosophical Beliefs**

Throughout history individuals with disabilities have been a part of society. However, the extent to which these individuals are included or excluded is influenced by the norms and beliefs of the larger society. Based on the belief that individuals with disabilities did not fit into larger society and needed to be protected, it was common until the mid 20th century to place individuals with disabilities into institutions or other settings outside of the mainstream of society. While this was viewed as a humane response to the needs of individuals with disabilities, the practice of segregating individuals with disabilities supported a perception that characterized individuals with disabilities as subhuman, a menace to society, burden of charity, and objects of pity (O'Brien, 2011).

In the mid 20th century the civil rights movement and the idea of normalization ignited and brought to the forefront issues of human dignity, human rights and social justice. The civil rights movement inspired disability activists to ban discrimination and seek equal protection under the law for individuals with disabilities. The principle of normalization (Wolfensberger, 1972), regarded individuals with disabilities as developing citizens and whole persons who had a right to patterns of life and conditions of everyday
living which were as close as possible to the regular circumstances and ways of life or society. This viewpoint challenged the philosophy of segregating individuals with disabilities from the mainstream of society and called for the elimination of barriers that limit the access to and participation of these individuals in normal life experiences and opportunities. This led to a shift from institutional services to locally-based community services, so that individuals with disabilities could more fully participate in typical life activities with and like their non-disabled peers. Fundamental to the principle of normalization, the civil rights movements and advocates of disability rights is the philosophical belief that inclusion is not a place, but a way of thinking and living together based on the belief that each individual is valued and belongs (Causton-Theoharis & Theoharis, 2008, Conner & Ferri, 2007).

Within the educational community, inclusion activists assert that it is not a question if students with disabilities should be included or who should be included, since inclusion is a fundamental right of all students, and schools should, without question, provide for the needs of all the children in their communities, whatever the level of their ability or disability (Foreman 2005; Foreman, & Arthur-Kelly, 2008; Gerrad, 1994). Proponents of inclusion view special education classrooms as unequal and detrimental to the development of all students, often resulting in isolation, stigma, and restricted opportunities for students with disabilities (Gerrad, 1994; Hsien, 2007; Powell 2009). Accordingly, every student has the right to an authentic sense of belonging, to be educated fairly, to have equitable access to rigorous and meaningful general education curricula, to form social attachments which can extend from the school to the home and
to learn from a diversity of attitudes, cultures, learning styles, and outlooks (Causton-Theoharis, & Theoharis, 2008, Gerrad, 1994, Stainback and Stainback, 1992). Parents, advocates and professionals sought legislation to guarantee and protect these rights.

Legislation

The passage of The Education for All Handicapped Children Act (EAHCA) PL 94-142 (1975) marked the first nationally mandated step toward inclusion. EAHCA imposed a strict set of federal rules and regulations requiring public schools to provide a free appropriate public education to all students with disabilities. This dramatic legislative act brought into the educational system approximately one million students who were previously barred from public education solely on the basis of their disability (Harkins, 2012). During the first decade after the enactment of PL 94-142, the majority of students with disabilities received the majority of their educational services in disability-specific “pull-out” programs such as resource rooms or self-contained classrooms that were staffed, administered and funded separately from the general education population.

While there was reason to celebrate the fact that students with disabilities who were previously not served or underserved were now receiving services, the extent to which special education “pull-out” programs improved the educational outcomes for students with mild disabilities surfaced as an area of interest and controversy (Will, 1986).

In 1985, Assistant Secretary of Education Madeline Will introduced the Regular Education Initiative (REI). Although REI was a policy initiative of the U.S. Department of Education, Office of Special Education and Rehabilitation Services (OSERS) and did not have the force of law, it intensified the debate surrounding the efficacy of special
education and built support for inclusion by calling for a reform to the existing separate, pull-out special education service delivery system through the consolidation of special education into regular education (Will, 1986). Central to REI was the theme of reforming special education through reform of general education (Manset & Semmel, 1997). If general education were redesigned it would no longer be necessary to identify students as having a mild disability or for services external to the mainstream classroom. Although the number of students with disabilities in general education classrooms increased, participation in general education classrooms continued to be perceived as a privilege and students with disabilities were expected to adapt to the general education classroom rather than the teachers adapting their instruction to meet the needs of students with disabilities (McLeskley, 2007).

IDEA (1990) extended the original rights and protections of PL-94-142 and signaled a change in attitude from disability-first to person-first language. The Education of All Handicapped Children Act (EAHCA) was renamed the Individuals with Disabilities Education Act (IDEA, 1990). Replacing the term handicapped children with individuals with disabilities sent a clear message that a disability is only one aspect of a person not their sole identity. To improve the results for all students, including students with disabilities, the reauthorization of IDEA in 1997 and 2004 and the passage of No Child Left Behind (NCLB, 2001) mandated five critical changes that extended and expanded legislative support for inclusion and propelled states to include more students with disabilities in general education classroom and all students with disabilities in standards-based achievement measures.
1. A new focus on access to the general curriculum. LRE was expanded to include, not only access of students with disabilities to non-disabled peers, but active progress and participation in the general curriculum. The general curriculum refers to a single curriculum that applies to all students and is defined by the established academic content standards that specify what students should know, and achievement standards that specify how students demonstrate mastery of the content (Browder, Wakeman & Flowers, 2006). Involvement and progress in the general curriculum is defined not only by exposure to the same curriculum, but the provision of supports and accommodations that will allow for meaningful and effective access to the general curriculum (Federal Register 1997). Vaughn, Bos, & Schumm (2007) explain:

   Sitting in general education classrooms is not enough; getting watered-down content area instruction in resources settings or self-contained settings is not enough. Students with disabilities are expected to be full participants, and teachers are expected to make the necessary accommodations to help all students meet standards (Vaughn et al., 2007, p. 428).

2. The participation of general education teachers in the education of students with disabilities increased. IEP team membership included the required participation of a general education teacher (Federal Register, 1997§ 300.344). With this provision, general education teachers became more active participants in the development, review, and revision of the IEP of the student, including assisting in the determination of appropriate positive behavioral interventions and strategies and the determination
of supplementary aids and services, program modifications, and support for school personnel.

3. The general education classroom must be the first placement option considered. Rather than making decisions about where a student would receive services based on their identified disability, IEP teams were charged with considering the general education classroom with accommodations, aids and services as the first placement option. Evaluation and IEP teams, including one of the student’s general education teachers, were charged with the responsibility of explaining how the student’s disability affected their ability to participate in the general education classroom, and generating strategies to support the student’s participation in the general education curriculum with his/her non-disabled peers. When an IEP team decided that a student with a disability would not receive all special education services with their non-disabled peers, written justification for this decision was required. Needed modifications in the general curriculum could not be the sole justification for the provision of services outside of the general education classroom.

4. The inclusion of students with disabilities in state and district assessments. In contrast to previous assessment requirements which allowed for the exemption of students with disabilities from state and district assessments, current legislation requires the participation of students with disabilities in state and district assessment and holds them accountable to the same standards-based curriculum as their typically developing peers (IDEA, 1997; NCLB, 2001). States are permitted to measure the achievement of students with the most significant cognitive disabilities based on
alternate achievement standards, however a 1% cap was imposed and the alternative achievement standards must be aligned with the general curriculum.

5. Preparation and training of school personnel to educate students with disabilities was mandated. To assure that students with disabilities benefited from participation in general education classrooms, the law required that related services personnel, paraprofessionals, and other personnel serving students with disabilities be appropriately and adequately prepared and trained, and have the content knowledge and skills required to serve students with disabilities (Federal Register, 2006 § 300.156 and section 612(a)(14)). As a result of this mandate, the various organizations that establish teacher standards for intervention specialists and teachers of early childhood, middle childhood and adolescent and young adult learners revised their teacher standards to reflect and incorporate the knowledge, skills and dispositions needed to meet the needs of diverse learners, including students with disabilities (CEC, DEC, NAEYC 2001, NMSA 2001, NCTE 2003, NCTM 2003, NSTA 2004, and NCSS 2004). To assure general education teachers received training about providing instruction to diverse populations, including students with disabilities, teacher preparation programs were required to align their courses of study with these teacher standards (Higher Education Opportunity Act, Pub. L. No. 110-315, 2008).

Collectively, these legislative requirements increased the number of students with disabilities in general education classrooms and changed the roles and responsibilities of general and special education teachers for the education and achievement of students with
disabilities. The legal mandate for involvement and participation of students with disabilities in the general curriculum and teacher standards consistent with effective inclusionary practices are not sufficient to guarantee successful inclusion. Teacher attitudes play a pivotal role in the successful inclusion of students with disabilities in general education classrooms (Berry, 2010; Cullen & Noto, 2007; Garriott, et al., 2003; Gelheiser & Meyers 1996; Lambert, et al., 2005; Martinez, 2003; McHatton & McCray 2007; Silverman, 2007; Sze, 2009; Van Laarhoven, et al., 2007). The law might require students with disabilities to be educated in general education classrooms, but the attitudes of teachers cannot be legislated (Colber, 2010). The decision to implement inclusion may occur at the building, district or state level; however, the most influential changes occur at the classroom level (Mamlin, 1999). Although general and special education teachers are most affected by implementing inclusive classrooms, they do not always have a voice in the decision-making process. The drastic increase of students with disabilities participating in general education classrooms does not mean that general or special educators have fully embraced the idea of inclusion (Sharma, et al., 2008, Swain, Nordness, & Leader-Janssen, 2012). According to the research, teachers’ attitudes toward inclusion vary and teachers demonstrate a range of behaviors toward students with disabilities.

**Teachers’ attitudes**

Attitudes may be defined in different ways, but most definitions refer to the beliefs and behaviors of an individual that reflect their thoughts and feelings about a particular situation, person and/or set of conditions (Kelley, 2010). In the context of this study,
attitudes are defined as the beliefs, thoughts, and feelings teachers have about inclusion, students with disabilities, and their roles and responsibilities. The importance of teachers’ attitudes lies in their impact on students with disabilities. It is the interaction between teacher and student that is critical to producing high-level student learning and achievement (Standards for Ohio Educators, 2007).

Teachers’ attitudes are generally revealed in their classroom behaviors and drive important instructional decisions and classroom practices (Cook & Cameron 2010, Renzaglia, et al., 1997, Silberman, 1969). These behaviors often communicate the extent to which a teacher values a student and the teacher’s expectations of the student’s academic and social performance. Both the overt and more subtle messages conveyed by the teacher’s behavior can impact the student’s self-image, behavior, and academic performance (Alexander & Strain, 1978; Pugach, & Seidl, 1995). Furthermore, teacher’s actions influence the perceptions and behavior of peers and other adults toward students with disabilities. Students without disabilities are more likely to feel positively toward classmates with disabilities if their teachers do, as teacher attitude partially mediates peer acceptance (Buell, Hallam, Gamel-McCormick & Scheer, 1999; Dodge, Coie, & Brakke, 1982; Freytag, 2001; Larrivee & Horne, 1991). Teachers who perceive other teachers’ attitudes as favorable have more positive attitudes toward students with disabilities themselves (Dupoux, Wolman, & Estrada 2005). A review of the literature suggests there is no single factor that determines a teacher’s beliefs, thoughts, and feelings toward inclusion. The multiple factors that research has demonstrated influence attitudes toward inclusion include a teacher’s:
• Philosophy of inclusion
• Beliefs about the nature of learning
• Response to the academic and social characteristics of students with disabilities
• Confidence to serve students with disabilities
• Perception of their role and responsibilities in serving students with disabilities.

The following section will explore and discuss each of the factors that are known to predict teacher behaviors that either promote or prevent successful inclusion.

**Philosophy of inclusion**

Teachers generally support the concept of inclusion. Across five studies conducted between 1981 and 1995, when presented with generally worded survey items such as “mainstreaming is a desirable educational practice”, between 60.1% and 77.6% (mean=70.8%) of the 5971 general education teachers surveyed responded positively to these statements (Scruggs, & Mastropieri, 1996). More recent studies corroborated these findings with the majority of respondents generally supporting the concept of inclusion (Berry, 2010; Silverman, 2007). This data engenders some optimism, however, a conceptual belief that it is a good thing for students with disabilities to be educated with their typically developing peers, although important, is not sufficient to guarantee the provision of supports and accommodations that will allow for meaningful and effective access to the general curriculum. “Teachers may feel challenged, hopeful, and desirous of what can be accomplished, but they may also feel frustration, burden, fear, lack of support, amid inadequacies about their ability to teach children with different kinds of
problems" (Shade, & Stewart, 2001, p. 37). As evidenced in the literature, a general positive endorsement of the concept of inclusion does not mean that teachers believe that all students with disabilities have the potential to learn.

**Beliefs about the nature of learning**

Teachers engaged in inclusion classrooms in a large, overcrowded New York City school district serving 38,000 students grades K-8 in 28 schools were asked to prioritize eight conditions necessary for successful inclusion. Survey results revealed that 74% of 72 respondents ranked teacher’s attitudes toward students’ ability to learn and achieve as the most important condition needed for successful inclusion (Weiner, 2003). Factors such as a student’s family background, IQ, and disability label have been linked to teachers’ expectations and the amount of time, energy and persistence the teachers dedicated to academic instruction and feedback (Gibson & Dembo, 1984; Good, 1981). Beliefs about students’ ability to learn and achieve are not dichotomous, but fall along a continuum. For the sake of clarity, the end points that define this continuum will be characterized as static and flexible. A static viewpoint assumes ability and disability are fixed, internal to the learner and cannot be improved or corrected through instruction. Therefore, how a student learns and/or the extent to which a student is capable of learning cannot be attributed to the efforts of the classroom teacher. In effect, the extent to which a student learns or is capable of learning is predetermined and the teacher assumes little, if any responsibility for the students’ progress. In contrast, other teachers believe a student’s ability to learn is incremental, malleable, and influenced in part by the opportunities to learn (flexible).
Thirty-two elementary classroom teachers, using an interview format, described in chronological sequence the steps they had taken over the course of a school year for two students with disabilities in each of their classrooms. Analysis of the interviews suggest that about 25% of the elementary classroom teachers took steps reflective of a static viewpoint, while the steps taken by 20% of the teachers reflected of a flexible viewpoint. The steps taken by over half of the teachers represented actions reflective of both static and flexible viewpoints (Jordan, et al., 2009). When mapped with classroom observations, these beliefs correlated with the level of responsibility the teacher assumed for student learning, expectations and classroom practices. Teachers who believed ability is fixed and influenced by factors beyond the teacher’s control, focused on what students with disabilities could not do, maintained low expectations, frequently referred these students for support outside the classroom, expected parents to undertake the majority of classroom learning as an after-school remedial ‘catch up’ activity, blamed or criticized the students and their families for failure to learn and did not solicit information from or collaboration with parents, teachers and professionals who also work with their students with special needs. Teachers who believed in a student’s learning potential established high expectations, assumed responsibility for reducing barriers to access for those students with disabilities, sought more information about their students from parents and colleagues, worked more collaboratively with teaching assistants and resource teachers, and were more systematic about keeping track of student progress. This involved adapting their instruction to allow students to participate, providing multiple opportunities for students to learn and respond in a variety of ways and offering praise
and encouragement (Brophy and Good 1974; Gibson & Dembo 1984; Jordan & Stanovich, 2003; White, 2007). Although these studies did not assess student outcomes, research suggests that negative attitudes lead to low expectations of a person with a disability, which in turn could lead to reduced learning opportunities, beginning a cycle of impaired performance and further lowered expectations, both by the teacher and the student (Campbell, Gilmore & Cuskelly; 2003; Rosenthal, 1968). A teacher may hold positive attitudes toward inclusion and generally believe students with disabilities can learn and achieve, but vary in their beliefs based on the real or perceived academic, behavioral, physical and sensory needs and characteristics of various disabilities as well as their beliefs about the demands the students’ instructional and management needs will place on them (Soodak, Podell, & Lehman, 1998).

**The academic and social characteristics of students with disabilities**

Students with disabilities demonstrate a wide variety of academic, behavioral, sensory and physical abilities and require varying levels of support to adequately and appropriately meet their educational needs. The category or label (e.g., learning disabled, emotional disturbance, autism) used to determine a student’s eligibility for special education services does not necessarily reflect the level of support needed to access the general curriculum. Teachers’ attitudes generally differed based on the additional instructional and management demands students with disabilities required of them. Students who did not require extra instructional or management skills were considered students with mild disabilities, whereas, students who posed additional problems and
demanded extra teaching time, energy and competencies were considered moderate or severe.

A review of twenty-eight studies, reflecting the responses of 10,560 teachers and other school personnel representing rural, urban and suburban school districts from all geographic regions of the US and several other countries, revealed the willingness to teach students with disabilities varied considerably in relationship to the severity level of the students and the amount of time the students were in the general education classrooms (Scruggs & Mastropieri, 1996). Similarly, in the majority of attitude studies reviewed by Avramidis & Norwich (2002), responses appeared to vary according to students’ instructional and behavioral characteristics. Generally, teachers supported the inclusion of students with mild physical, sensory, learning, and medical disabilities, requiring little or no teacher assistance, but were less supportive of including students with more serious intellectual, physical or behavioral disabilities. According to Dupoux, et al. (2005), general education teachers found it difficult to respond to the mandate to integrate students who were socially maladjusted and emotionally disturbed due to the extra time and energy these students required. Research suggests teachers who teach, or plan to teach, high school age students tended to be less enthusiastic about inclusion (Berry, 2010; Lambert, et.al, 2005). The additional challenges of helping adolescent students understand the more advanced content of the curriculum, develop needed social and functional skills, and engage in transition services placed added instructional and behavioral demands on the shoulders of secondary teachers (Conderman, & Katsiyannis, 2002).
In support of the premise that teacher attitudes predict teacher behavior, teachers were found to respond and interact differentially based on the teacher’s attitude toward the student. Building upon the work of previous investigators (Brophy, & Good, 1974; Good & Brophy, 1972; Silberman, 1969), Cook, et al. (2007) investigated four attitudes (attachment, concern, indifference, and rejection) held by teachers toward their students. "Attachment" was defined as an affectionate tie to students which derives from the pleasure they brought to the teacher's work. "Concern" signified sympathy and support for students' academic and/or emotional problems. "Indifference" referred to a lack of involvement in students because of their failure to excite or dismay their teacher. "Rejection" indicated a refusal to consider students as worthy recipients of the teacher's professional energies (Silberman, 1969). Cook, et al. (2007) surveyed fifty teachers who taught in inclusive kindergarten through fifth grade classrooms in twelve school districts. The average class size was 24 with an average of three students with disabilities in each classroom. Students with disabilities were included in these general education classrooms an average of 84% of the school day. Students with disabilities (n = 156) represented eight disability categories with 38.5% of students identified as having a specific learning disability and 27.6% a cognitive disability. In the latter half of the school year, after the teachers had extensive experiences with all their students, each teacher rated their level of agreement, using a 4-point Likert-type scale, with four attitudinal prompts for each student with a disability, two non-disabled girls and two non-disabled boys. Each prompt corresponded to either an attitude reflective of attachment, concern, rejection or indifference. Consistent with the previous findings (Cook, 2004;
Cook & Tankersley, 2000), students with disabilities were overrepresented in the concern and rejection category, underrepresented in the attachment category, and equally represented in the indifference category. According to the authors, the learning and behavioral problems that led to their identification as a student with a disability corresponded to the elevated attitudes of concern and rejection. Cook & Cameron (2010) explored the relationship between teachers’ attitudes of concern and rejection and teacher-student interactions. In this study, researchers observed the instructional-academic and non-instructional-behavioral interactions of fourteen K-8 inclusive teachers with 13 students with mild disabilities and 13 students with severe disabilities. Participating teachers used a scale of 1 (not at all true) to 4 (extremely true) to respond to the following two statements:

• I would like to devote all of my attention to this student because he or she concerns me.
• If my class were to be reduced, I would be relieved to have this student removed.

Analysis revealed a significant and positive correlation between concern ratings and the amount of time teachers were engaged in individual, instructional-academic interactions and a significant and positive correlation between rejection ratings and the amount of time teachers were engaged in non-instructional-behavioral interactions.

The level of ownership and engagement that general education teachers have with students with disabilities in their classrooms has been identified in the literature as a key factor affecting the success of inclusive educational experiences (Giangreco, Broer, & Edelman, 2001, Vaughn et al. 2007). The results of the studies conducted by Cook & Cameron (2010) and Cook et al. (2007) clearly illustrated various levels of ownership and
engagement which, in turn, influenced the provision of supports and accommodations students received. The students for whom the teachers reported concern received more teacher attention both verbally and instructionally. The students in this category demonstrated academic challenges, but were perceived as attentive and willing to learn. Regardless of disability label, these students were characterized by their teachers as having mild disabilities. The provision of positive instructional feedback and academic services has been associated with meaningful gains in student performance (Campbell et al., 2003; Rosenthal, 1968). Students within the rejection category were identified by their teachers as having severe learning or behavior disabilities and exhibiting inappropriate classroom behaviors such as defiance and non-compliance. In contrast to the instructional supports offered students in the concern category, negative remarks concerning students’ misbehavior characterized the student-teacher interaction among students in the rejection category. Negative comments do not proactively promote or teach students appropriate behaviors, facilitate academic and social learning or engender a sense of belonging. Limited verbal interaction and instructional assistance characterized the student-teacher interactions for students in the indifference group. Although students with disabilities were equally represented with their typically developing peers in the indifference group, the lack of teacher involvement with students with disabilities in the indifference category is a clear indication that at least some students with disabilities in general education classrooms did not receive the supports and accommodations needed to promote progress and participation in the general curriculum. It is noteworthy that students with disabilities were never identified as falling within the
attachment category. Some of the students with disabilities in general education classrooms were worthy of the teacher’s sympathy and support for their academic and/or emotional problems, but none of the student’s with disabilities were reported to bring the teacher pleasure or warrant an affectionate tie.

In summary, students with mild disabilities received the supports and accommodations that define successful inclusion while students with more demanding disabilities were either rejected or treated with indifference. Although a teacher’s attitude and the corresponding behaviors they demonstrated toward a particular student were influenced by the student’s learning and behavioral characteristics, a teacher’s real or perceived level of confidence and preparedness to meet the academic and behavioral needs of students with disabilities represented another factor found to influence teachers’ attitudes (Avramidis & Norwich, 2002; Soodak, et al., 1998).

Confidence

Studies demonstrated that teachers who believe they possess the knowledge and skills needed to address the learning and behavioral needs of students with disabilities not only accepted these students into their classroom, but implemented instructional and behavioral strategies that resulted in higher student engagement and achievement (Bandura, 1993; Gibson, & Dembo, 1984; Jordan, et al. 2009). Despite the importance of confidence and feeling prepared, many practicing and prospective general education teachers who conceptually embraced inclusion indicated limited confidence in their skills (Berry, 2010; Buell, et al., 1999; Cameron & Cook, 2007; Cook, et al., 2007; Sadler, 2005). To illustrate, 74% (n=60) of the general education teachers who completed a
graduate level special education survey course reported positive attitudes about inclusion, but were anxious they did not possess the tools to be effective inclusion teachers (Berry, 2010). In a research synthesis conducted by Scruggs & Mastropieri (1996), many general education teachers indicated that they viewed special education teachers as the experts more qualified to handle students with special educational needs and only one-third of the respondents agreed general education teachers had sufficient expertise or training for meeting the educational needs of students with disabilities in general education classrooms. Perhaps these beliefs account for the opinion expressed by many educators that students with disabilities are best served in special education classrooms (Berry, 2010; Garriott, et al., 2003; Shade & Stewart, 2001). Although lack of confidence, training and expertise were associated with negative attitudes towards inclusion, expectations regarding the roles and responsibilities of general and special educators may be at the crux of understanding the current attitudes toward the inclusion of students with disabilities in general education classrooms.

**Roles and responsibilities**

Successful inclusion redefines the traditional roles, responsibilities and expectations of general and special educators (Hardman & Dawson, 2008). Inclusion requires a shift from a separate, special model to a collaborative model in which successful involvement and progress in the general curriculum is a collaborative effort among general and special educators. The roles and responsibilities general and special education teachers are expected to play in this collaborative model are a departure from their previous roles and responsibilities, and require practicing teachers, particularly veteran teachers, to change
and modify their instructional practices. However, the roles and responsibilities in this new collaborative relationship are not clearly defined. This lack of clear definition may lead to confusion, frustration and attitudes less than supportive of inclusionary practices. Even in situations in which the roles and responsibilities are clearly defined, teachers may resist or be reluctant to change and modify their instructional practices. Conflicting viewpoints and unresolved answers to three inclusion-related issues contribute to teachers’ confusion, frustration and resistance.

The first issue concerns the benefits of inclusion for students with disabilities. Despite the steady increase in the number of students with disabilities in general education classrooms, empirical evidence supporting the benefits of inclusion for students with disabilities is limited, inconsistent and inconclusive (Manset & Semmel, 1997; Zigmond, 2003). On the one hand, there is research indicating that students with disabilities in the general education classrooms achieved higher academic gains, experienced increased self-confidence and self-esteem and were more successful after high school (Reschly & Christensen, 2006, Rosenzweig, 2009). In a study of 11,000 students in the United States, Blackorby, et al., (2005) reported students with disabilities who spent more time in regular classrooms had higher scores on achievement tests, were absent less, and performed closer to grade level than their peers who received their instruction in resource or self-contained classrooms. These findings corroborate the findings of Wagner, Newman, Cameto, and Levine (2003). Overall, students with disabilities in inclusive settings performed less well than their typically developing peers, but closer to grade level on standards-based achievement tests than their more segregated peers.
While acknowledging the importance of a sense of belonging, access to the general education curricula, and the formation of social attachments, there are those who contend that special education classrooms provide a more individualized, protective environment for students with disabilities and serve as their own supportive community for students with disabilities that cannot be replicated in a mixed-ability, general education classroom (Kauffman, Landrum, Mock, Sayeski, & Sayeski, 2005). In support of this viewpoint, research found that some students with disabilities performed better academically in pull-out resource programs, and inclusive classrooms failed to help students with disabilities develop the functional skills needed for success in school and community settings (Billingsley & Albertson, 1999; Manset & Semmel, 1997; Marston, 1996; Zigmond, Jenkins, Fuchs, Deno, Fuch, Baker, et al., 1995). After reviewing eight model programs, Manset and Semmel (1997) concluded that the effects of inclusive programming for most students with mild disabilities were unimpressive. Only two of the eight model programs that compared the reading and language arts achievement of students with mild disabilities in inclusion classrooms versus pull-out programs reported significantly greater gains. A statistically significant impact was found in only two of the five model programs that compared the math achievement of students with mild disabilities in inclusion classrooms versus pull-out programs. These findings are particularly relevant given the fact that this research was conducted with school-wide model programs that were designed and implemented by university-affiliated researchers with the intent of demonstrating an approach to inclusive education that could be systematically analyzed and replicated. Compared to average schools, each model
program received a large amount of technical and financial support to implement exemplary inclusive practices. Based on the limited benefit to students with disabilities educated in model inclusive classrooms, Manset and Semmel (1997) concluded that students with mild disabilities benefited from intensive, individualized instruction through specialized programming, therefore, such programming must be maintained. Many general and special educators feel more secure maintaining their traditional roles and responsibilities rather than changing their instructional practices, when research has not clearly demonstrated the benefits of inclusion for students with disabilities.

The second issue revolves around where students with disabilities receive their specially designed instruction. IEP teams are required to consider the general education classroom as the first placement option with the expectation that needed services, accommodations, and modifications are provided within the general education classroom (IDEA, 2004). The current preference for educating students with disabilities in general education classrooms appears to conflict with many of the foundations of special education. Special education classrooms were established to afford students with disabilities advantages typically unavailable in general education classrooms. These advantages included: a lower teacher-student ratio, specially trained teachers, greater individualization of instruction in a homogenous classroom, and an increased emphasis on social and vocational curriculums (Beaudoin-Colwell, 2009). Special educators were viewed as possessing a unique 'bag of tricks', inaccessible to general education teachers (Boutot, 2007). Based on these advantages, resource and self-contained classrooms were viewed as the most appropriate, least restrictive environment to meet the individual needs
of students with disabilities. The mandate to provide specially designed instruction within general education classrooms instead of separate special education classrooms has left many general and special education teachers confused about what constitutes most appropriate placement, least restrictive environment and how specially designed instruction can be provided in general education classrooms. This is especially true when general education classrooms are typically characterized by large group academic instruction delivered by a teacher trained in content areas. In theory, specially designed instruction can be provided in general education classroom through collaboration between general and special education teachers, however, there are gaps between theory and practice.

The final issue questions how general and special education teachers can collaboratively meet the academic and social needs of students with disabilities in general education classrooms. Cooperative teaching (co-teaching) has emerged as the preferred model to provide specially designed instruction to students with disabilities in general education classrooms. Co-teaching is generally defined as one general education teacher and one special education teacher collaboratively delivering substantive instruction to a diverse, or blended, group of students, including students with disabilities in a general education classroom (Friend, Cook, Hurley-Chamberlain, & Shamberger, 2010). The expectation is for general and special educators to share and cross-train each other regarding curricular content, expertise, and effective academic and behavioral interventions. The intent of co-teaching is to simultaneously afford students with disabilities access to the general curriculum, participation with their non-disabled peers
and the expertise of both a general and special educator. The intuitive appeal of co-teaching belies the challenges general and special educators face when designing and implementing co-teaching. General and special education teachers are accustomed to working alone when teaching their students and are not used to working together on a frequent basis (Rosenzweig, 2009). The transition from sole ownership to the cooperative relationship needed to effectively implement co-teaching may be challenged by issues related to compatibility, differences in teaching and management style and pedagogy. The willingness of general and special educators to embrace and implement co-teaching is further complicated by an evolving understanding of co-teaching, differences in how co-teaching is defined and implemented, lack of professional preparation, dilemmas related to situating co-teaching in a supportive, collaborative school culture and the lack of a strong evidence base in support of co-teaching (Friend, et al., 2010; Scruggs, et al., 2007).

**Summary of teachers’ attitudes**

Attitudes related to the concept of inclusion, beliefs about what students with disabilities can learn, where this learning should occur, and who has the skills and responsibility for providing instruction to these students often predict teacher behaviors that either promote or prevent successful inclusion. What research has demonstrated is that teachers who believe *all* students can learn and possess a positive sense of personal self-efficacy, promote and facilitate the learning of *all* students, including students with disabilities, through the collaborative provision of supports and accommodations designed to maximize student learning and student achievement (Jordan, et al., 2009,
2010; Stanovich & Jordan, 2002, 2004). In the absence of these beliefs, students with disabilities may experience rejection and/or indifference from their teachers, which by any standards is the antithesis of successful inclusion. Existing data suggests not all teachers believe all students can learn, believe they possess the skills needed to meet the diverse academic and behavioral needs of students with disabilities or willingly accept their role/responsibility in providing successful inclusionary practices. The discrepancy between the attitudes needed for successful inclusion and various attitudes held by practicing and future teachers signals a need for strategies designed to improve teachers’ attitudes, if the promise of inclusion is to become a reality. Several researchers have suggested training as a strategy for promoting more positive attitudes toward inclusion (Avramidis, and Norwich, 2002; Buell, et al. 1999; Cameron & Cook 2007; Hsien 2007; Leyser, Kapperman & Keller1994; Leyser & Tappendorf, 2001; Rosenzweig, 2009; Scruggs & Mastropieri, 1996; Wilkins, & Nietfeld, 2004).

**Promoting positive attitudes toward inclusion.**

Although staff development has been identified as a key to the success of inclusion (Dikens-Smith, 1995, Ernst & Rogers, 2009), the increasing number of students with disabilities in general education classrooms establishes a compelling need for general and special education teachers to enter the profession with positive attitudes toward inclusion (Sharma, et al., 2008). According to Wilkins, & Nietfeld (2004), research identified pre-service training as one of the most prevalent influences on teachers’ acceptance of inclusion-based practices. Reynolds & Birch (1977) documented that prior to receiving students with disabilities in their classrooms, teachers want training and, therefore, such
training should occur at the pre-service level. Currently, each state is required to establish and maintain qualifications to ensure that teachers, related services personnel, paraprofessionals, and other personnel serving children with disabilities are appropriately and adequately prepared and trained and have the content knowledge and skills required to serve children with disabilities (Federal Register, 2006 § 300.156 and section 612(a)(14)). Institutions of higher education (IHE) responded to the need and legal requirement to prepare and train teachers for their new roles and responsibilities by requiring all prospective teachers to complete coursework about providing instruction to diverse populations, including students with disabilities (Higher Education Opportunity Act, Pub. L. No. 110-315, 2008). There are numerous studies that describe the attitudes of prospective teachers, however there are limited studies that empirically investigated the impact of course content on the attitudes toward inclusion of prospective teachers. Given the specific legislative mandates of NCLB and IDEA that frame and define the current inclusion movement in the United States, only studies investigating the impact of teacher education on the attitudes of prospective teachers conducted in the United States were reviewed. Table 1 provides a brief overview of studies conducted in the United States that investigated the impact of teacher preparation on prospective teachers’ attitudes toward inclusion.
Table 1

_U.S. Studies investigating the relationship between teacher preparation and teachers’ attitudes toward inclusion_

<table>
<thead>
<tr>
<th>Method of intervention (independent variable)</th>
<th>Number of studies</th>
<th>Number of participants</th>
<th>Instruments that assessed attitudes toward collaboration</th>
<th>Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content embedded into a general education evaluation and measurement course: Specific to students with learning disabilities</td>
<td>1</td>
<td>208</td>
<td>0</td>
<td>Brown, Welsh, Hill, &amp; Cipko, 2008.</td>
</tr>
<tr>
<td>Infusion program: specific to students with mental retardation</td>
<td>1</td>
<td>57</td>
<td>0</td>
<td>Cameron &amp; Cook, 2007.</td>
</tr>
<tr>
<td>Special voluntary project</td>
<td>1</td>
<td>106</td>
<td>0</td>
<td>Van Laarhoven, et al., 2007.</td>
</tr>
</tbody>
</table>

_**Studies investigating the impact of course content on prospective teachers toward inclusion**_

Among the ten U.S. empirical studies that were reviewed, seven studies examined the impact of a single introductory special education course on the attitudes of prospective teachers. The remaining three studies investigated the impact of other models used to
prepare prospective teachers for inclusion. The results of the all ten studies are summarized, starting with the three studies that employed models different than the predominant teacher preparation model which required a single introductory special education course.

Cameron & Cook (2007) investigated the beliefs, intentions and skills of 57 future teachers related to planning and making accommodations for included students with intellectual disabilities. This study was conducted in a university in which the topic of inclusion was infused into existing courses that comprised the established separate general and special education teacher preparation programs. Rather than offering a specific course focused on inclusion, special education and inclusion issues were infused into a small number of introductory general education teacher preparation courses. For special education majors, issues related to inclusion were infused into the majority of courses within the special education concentration. During their last year of training, undergraduate general and special education majors rated their level of agreement with 30 statements using a 4-point Likert-type scale (1 = low agreement, 4 = high agreement). Analysis of the participants’ responses revealed that special education majors reported statistically significant greater beliefs, intentions and skills than general education majors. Although the ratings of special education majors (n=23) in all three areas were higher than general education majors (n=34), the authors characterized the beliefs and intentions of general education majors as positive based on a mean score of 3.25 for beliefs and 3.15 for intentions. The mean rating of general education majors’ skills was 1.72 which suggested despite their beliefs and intentions, as a group they did not perceive themselves
as having the skills needed to actualize their beliefs and intentions. The authors concluded that infusing information about inclusion into existing course content had a positive impact on the importance both general and special prospective teachers placed on planning and making adaptations for included students and their intention to engage in these inclusionary practices. However, the infusion of special education and inclusion issues into the courses for general education teachers was not sufficient to positively impact their belief that they had the skills to effectively plan and make adaptations for students with disabilities.

In a study conducted by Brown, et al. (2008), 208 prospective elementary, secondary, early childhood and special education teachers were enrolled in a required general education evaluation and measurement course. Students in the experimental group (n = 99) were exposed to expanded course content that included information specific to students with learning disabilities. The control group (n= 109) was exposed to the traditional course content. Prior to taking this course, there were no differences in pretest scores between the control and experimental groups regarding students’ knowledge of learning disabilities or attitudes toward teaching students with learning disabilities. Students who received instruction related to students with learning disabilities embedded into the evaluation and measurement course demonstrated more knowledge about learning disabilities and more positive attitudes toward teaching students with learning disabilities than students who did not receive this embedded instruction. Both the Cameron & Cook (2007), and Brown, et al. (2008) studies provided evidence that attitudes of future teachers toward students with intellectual disabilities and learning
disabilities were greatly improved as a result of the instruction they received in their teacher preparation program. Although information about the impact of teacher preparation on the attitudes toward the inclusion of these two groups of students with disabilities is important, students with a wide range of academic, physical and behavioral characteristics are included in general education classrooms. Additional research studies investigated the impact of pre-service coursework on attitudes toward the inclusion of a wider range of students with disabilities.

Van Laarhoven et al. (2007) compared the impact of single course versus an enhanced curriculum on the attitudes toward inclusion of pre-service general and special education teachers. The control group included 53 general education majors enrolled in Collaborative Teaching in Inclusive Settings, the course developed by the university to meet the professional teaching standards and to prepare graduates for inclusive settings. The experimental group included 53 special and general education pre-service teachers who voluntarily joined a project that added an enhanced curriculum and field experiences in inclusive classrooms to the Collaborative Teaching in Inclusive Settings course. Project participants received intensive preparation in use of assistive technologies, functional behavioral assessment, and instructional accommodations, as well as experience designing lesson plans that included features of universal design. Two surveys and curricular probes were used to compare the control and experimental groups’ attitudes toward inclusive education and their competency in implementing critical instructional strategies. Although both prospective general and special educators participated in the enhanced project, the authors analyzed the results for general and
special educators in the experimental condition separately. According to the authors, prospective special educators had more exposure to inclusionary practices than their general education counterparts, thus reporting the results for prospective general and special educators separately highlighted the relative benefits each group received from participating in the project. Data analyses indicated participation in the voluntary enhanced curriculum project resulted in more substantial gains than only taking the required inclusion course with the most substantial gain among prospective general education teachers. However, students enrolled in the both the required inclusion course and the experimental enhanced curriculum project improved in both their content knowledge and attitudes toward inclusion. The authors concluded that although the positive impact on attitudes toward inclusion were greater for the group of students that voluntarily engaged in additional training and field experiences, the results of their study confirmed the positive impact a single inclusion course can have on the attitudes toward inclusion of pre-service general education teachers. Consistent with the findings of Van Laarhoven et al. (2007), the authors of all seven studies that examined the impact of a single introductory special education course on attitudes toward inclusion reported quantitative and/or qualitative positive results.

Kirk (1998) used two pre-test/post-test surveys and focus groups to explore whether learning about inclusion promoted positive attitudes in future teachers. Fifty-nine pre-service general education teachers completed a course dealing with inclusion. At the beginning and end of the course students completed a 27 question survey that was used for quantitative analysis. Qualitative analysis was used to examine the pre/post responses
to five questions about students with special needs and the discussions of two focus groups held at the end of the semester. While the results of the quantitative survey showed no significant statistical difference between the means of pre- and post-test responses, there were substantial differences on six of the questions on the quantitative survey, responses to the five-question survey and attitudes expressed during the end of the semester focus groups. According to the author, at the beginning of the course, students fell into two distinct groups: those who would love working with children with special needs and those who would be uncomfortable with exceptional students. On the post-test, however, both quantitative and qualitative responses indicated that these prospective general education teachers thought that working with children with special educational needs would be challenging and stressful, but also rewarding. Additionally, all three data sources indicated an increased awareness of different learning styles, the necessity of curricular and instructional adaptations and the extra time and support required to implement effective inclusionary practices. The fact that this group of future teachers became more aware of and more realistic about the career path they have selected, led Kirk to conclude that, even though statistically significant results were not achieved, this single introductory course about inclusion had a positive impact on attitudes toward inclusion. A similar discrepancy between quantitative and qualitative results was found in a study conducted by Martinez (2005).

Martinez (2005) examined the attitudes toward inclusion, teaching self-efficacy and knowledge about adapting teaching for students with disabilities of 23 graduate students enrolled in a 15 week graduate introductory special education course. During the first
and last class of the course, students completed The Opinions Relative to the Integration of Students with Disabilities (ORI) (Antonak & Larrivee, 1995), Teachers’ Sense of Efficacy Scale (TSES) (Tschannen-Moran & Woolfolk Hoy, 2001), and semi-structured interviews. Data analysis did not reveal a statistically significant difference between pre and post-test data. Further inspection of the pre-test surveys revealed students held positive attitudes toward inclusion and confidence in addressing the needs of students with disabilities in inclusive settings at the beginning of the course. Despite non-significant survey results, narrative responses on the post course interviews indicated most students improved their attitudes toward inclusion as well as their sense of competence to be effective in inclusive settings. According to the author, these findings suggest that although the impact of a single introductory special education course may be limited by preexisting positive attitudes, a graduate level introductory special education course enhanced existing positive attitudes toward inclusion. The results of the Kirk (1998) and Martinez (2005) studies demonstrated that even though statistically significant results were not achieved, attitudes toward inclusion improved. Conversely, other studies that investigated the impact of a single introductory special education course on attitudes toward inclusion reported statistically significant results however, interpretation of the post-test responses suggested that these prospective teachers did not fully embrace inclusion.

The impact of a 16 week required introductory special education course on attitudes toward students with disabilities and instructional competencies needed to serve these students in general education classrooms was investigated by Powers (1992). Using a
four-point scale, pre-service teachers (n=186) rated 22 attitudinal statements and 14 instructional competency statements at the beginning and end of the course. Analysis of survey responses revealed statistically significant differences in attitudes and instructional competencies required to provide a free, appropriate public education to students with disabilities in the least restrictive environment. Despite the significant change, interpretation of post-test mean scores indicated that after completing the course pre-service teachers were unsure about their attitudes toward inclusion and identified their instructional competences as needing improvement. Based on these results, the author concluded that even though positive significant differences in attitudes and skills were found among pre-service teachers after a single special education course, these changes were not sufficient to effectively address the needs of students with disabilities in general education classrooms. In part, the author reached this conclusion because responses to specific survey statements indicated a preference for a pull-out special education service delivery system in which special education teachers were responsible for the educational needs of students with disabilities.

Similar findings were revealed in a study conducted by Shade & Stewart (2001). Using the 48-item Mainstreaming Inventory (Baker, Kapperman, & Montemurro, 1981), the change in overall attitudes toward students with disabilities, inclusion, and confidence in working with students with disabilities in general education classrooms were assessed. Their study included 122 elementary and secondary majors enrolled in a required course entitled Survey of Special Education and 72 undergraduate special education majors enrolled in a required course entitled Overview of Special Education. Both general and
special education pre-service teachers exhibited statistically significant total test gain scores which led the authors to conclude that a single introductory special education course significantly changed pre-service teacher attitudes toward the inclusion of students with mild disabilities into the general classroom. The extent to which this study proved a single course changed the attitudes of prospective general education teachers is limited by the absence of any discussion regarding the three subscales (Class placement, Time and Work, and Motivation) in which there was no significant difference. The inventory included five items related to class placement and the authors reported the following item as representative of this subscale: "I think that the full time special education class is the best placement for students with disabilities" (Shade & Stewart 2001). Although there may be a reasonable explanation, the absence of any discussion or interpretation regarding the lack of change regarding attitudes toward class placement suggests that general education teachers continued to believe students with disabilities should be educated in special education classes.

The remaining three studies that investigated the impact of a single introductory special education course on the attitudes toward inclusion of prospective teachers reported positive results.

Using a survey of unknown reliability and validity, the responses of 22 prospective elementary teachers revealed significant differences in pretest and posttest teacher candidates’ perceptions about their professional preparedness to teach students with disabilities (Singh, 2006). It is noteworthy, the small sample included only prospective elementary teachers and the results reflected the completion of an introductory special
education course and 45 hours observing and tutoring in an inclusive classroom. The study did not attempt to separate changes in attitudes attributed to completion of the course versus the 45 hours of field experience.

In another study, based on the results of a 21 item pre/post survey completed by 436 prospective general education teachers enrolled in an Introduction of Students with Exceptionalities course, Lambert, et al. (2005) reported statistically significant results. Two hundred and twenty-nine participants were categorized as content generalizing (early childhood and elementary majors) and 207 participants were categorized as content specialists (secondary, Art, English, History, Physical Education, etc. majors). Thirty-five special education majors who completed the pre/post survey were excluded from this analysis. Using a Likert-like, four-point (strongly disagree to strongly agree), respondents rated their level of agreement with eight statements reflective of general attitudes toward inclusion. For the remaining thirteen items, participants responded to the following prompt for 13 specific disabilities: “The following students should be taught in the general education classroom”. Data analysis revealed highly significant differences between pre- and post-survey scores for all eight general inclusion items and the inclusion of all 13 specific disabilities. Further inspection of the findings found prospective teachers were more willing to include students with mild disabilities than those with more severe disabilities. According to the authors, categorical information concerning students with mild disabilities was covered in-depth and students with low incidence disabilities were only briefly discussed. The amount of attention and emphasis placed on students with mild disabilities may have contributed to more positive attitudes
toward students with mild disabilities. With respect to area of concentration, both the pre-survey and post-survey results indicated that content generalists held more positive attitudes toward inclusion compared to content specialists. Although content specialists were less positive toward inclusion than early childhood and elementary majors, content specialists demonstrated statistically greater growth than early childhood and elementary majors. Thus, the authors concluded that an introductory course in special education may be a valuable method to encourage secondary specialists to embrace inclusion.

Shippen, et al., (2005) examined the level of enthusiasm and tension prospective teachers felt when they were told students with disabilities would be included in their classrooms. Three hundred and twenty-six graduate and undergraduate students from three universities completed a survey at the beginning and end of their enrollment in a survey of exceptionalities course. The survey consisted of a one-paragraph hypothetical scenario regarding serving students with disabilities in inclusive classes. The scenario was followed by a list of 17 adjectives rated on a 5-point Likert-type scale delineated as negative, somewhat negative, neutral, somewhat positive and positive feelings toward serving students with disabilities in general education settings. Based on a confirmatory factor analysis, the 17 adjectives represented two dichotomous scales: hostility/receptivity and anxiety/calmness. The results revealed significantly decreased levels of hostility and anxiety toward serving students with disabilities in general education settings. Based on these results, the authors concluded that the knowledge and experience pre-service teachers gained in a single introductory special education course
had a positive influence on their willingness and calmness toward including students with disabilities in general education classrooms.

The ten studies that investigated the impact of teacher preparation on the attitudes of prospective teachers reported positive results. These findings support the training of prospective teachers as an effective strategy to cultivate positive attitudes toward students with disabilities in general education classrooms however, there were limitations with all ten studies, which are important to consider.

**Limitations of current studies**

Psychometrically sound instruments are required to evaluate the impact of strategies designed to positively modify attitudes toward teaching students with disabilities (Antonak, & Larrivee, 1995). Among the ten studies reviewed, four studies used instruments of unknown reliability and validity to measure change in attitudes toward inclusion.

In addition to the need for instruments which are psychometrically sound, an instrument that is sufficiently broad enough is required so that critical attitudinal variables associated with successful inclusion are adequately measured (Cullen, et al., 2010). Six of the ten reviewed studies employed psychometrically sound instruments that assessed attitudes toward students with disabilities and/or attitudes related to the teacher’s level of confidence in addressing the needs of students with disabilities in general education classrooms. Successful inclusion redefines the traditional roles, responsibilities and expectations of general and special educators (Hardman & Dawson, 2008). Collaboration between general and special educators is critical to the successful
inclusion of students with disabilities (Shippen, et al., 2005). Despite the central role of collaboration, none of the studies used instruments that assessed attitudes toward collaboration.

**Summary**

Inclusion is a reality in today’s schools. An ever increasing number of students with disabilities are being educated in general education classrooms. For students with disabilities involvement and progress in the general curriculum is defined not only by exposure to the same curriculum, but the provision of supports and accommodations that will allow for meaningful and effective access to the general curriculum (Federal Register, 1997). Inclusion requires a shift from a separate, special model to a collaborative model in which successful involvement and progress in the general curriculum is a collaborative effort among general and special educators. Teachers’ attitudes predict their classroom behaviors, drive important instructional decisions and classroom practices and communicate to students their academic and social performance expectations (Alexander & Strain, 1978; Cook & Cameron 2010; Pugach, & Seidl, 1995; Renzaglia, et al., 1997, Silberman, 1969). As such, positive attitudes are needed to assure that students with disabilities have meaningful and effective access to the general curriculum. Cultivating positive attitudes of general and special educators toward inclusion as they assume their new collaborative roles and responsibilities is critical (Brown, et al., 2008; Forlin, Loreman, Sharma & Earle, 2009; Sharma, Forlin, Loreman, & Earle, 2006). Although attitudes represent a dimension of teaching that is neither typically nor rigorously addressed in teacher education programs (Jordan, et al., 2009),
developing positive beliefs and attitudes that will serve to inform the professional practices and decision-making of general and special educators represents an important outcome of teacher education programs (Renzaglia, et al., 1997).

Research has demonstrated the positive impact of coursework on the attitudes of prospective teachers toward inclusion. However, the authors of all of the reviewed studies concluded that continuing research is needed to measure the impact of redesigned teacher training programs on the attitudes of teachers toward inclusion (Brownell, Ross, Colón, & McCallum, 2005). Some authors have proposed more units be included in general teacher education courses (Kamens, Loprete & Slostad, 2003; Martinez, 2003; Powers 1992), and other authors advocate for the incorporation of practical field experiences (Campbell et al, 2003; Pace, 2003). Available data suggests the most prevalent strategy used to prepare prospective general education teachers for inclusion is requiring a single introductory special education course (Holland, et al., 2008). The effectiveness of the most prevalent method for preparing teachers for their new collaborative roles and responsibilities and promoting positive attitudes toward inclusion is limited by the absence of any studies that included an assessment of attitudes toward collaboration.

The purpose of the current study is to assess the impact of a required introductory special education course on attitudes toward inclusion of prospective general and special education teachers using a valid and reliable measure that encompasses attitudes critical to successful inclusion including an assessment of attitudes toward collaboration.
CHAPTER III

METHODS

The purpose of this study was to examine the effect of a single introductory special education course on the attitudes of undergraduate prospective teachers toward inclusion of students with mild to moderate disabilities in general education classrooms. Students enrolled in SPED 23000, Introduction to Exceptionalities, at Kent State University (KSU) provided demographic information and completed the Teacher Attitudes Toward Inclusion Scale (TATIS-P) (Appendix B) at the beginning and end of this 15-week course. Specific attitudinal constructs examined included: perceptions of students with mild to moderate disabilities in inclusive settings; beliefs about the efficacy of inclusion; and beliefs regarding professional roles and responsibilities. Dependent t-tests were conducted to determine the pre/post differences of prospective general education and special education teachers’ attitudes toward inclusion. Independent t-tests were used to determine whether prospective general and special education teachers differed in their attitudes toward inclusion.

Participants

Participants for this study were prospective teachers enrolled in SPED 23000 Introduction to Exceptionalities at Kent State University’s main and regional campuses. In the fall of 2011, KSU main and regional campuses offered 10 sections of SPED 23000 Introduction of Exceptionalities taught by 8 different instructors. The six instructors who agreed to participate in the study taught eight of the ten sections. All students were
invited to participate in this study. Participation was voluntary and anonymous. Three hundred and two students completed the pretest and 247 students completed the posttest.

Due to absences, withdrawals, or student choice to decline participation, 51 students enrolled in the course did not complete either the pre- or post-survey and were not included as part of the sample. Non-education majors (N=44) were also excluded from the statistical analysis. A total of 207 education majors (165 general education and 42 special education), comprised the sample population for statistical analysis. The group of general education majors included 69 Early Childhood, 28 Middle Childhood, 50 Adolescent and 20 Multi-Age education majors. Special Education majors included students seeking a teaching license as a Mild/Moderate Intervention Specialist and/or a Moderate/Intensive Intervention Specialist. Participants included ten freshman, 107 sophomores 58 juniors, and 32 seniors. Experience with individuals with disabilities varied with the majority of the students having had casual experience (41%) with students having disabilities before the class began. Thirty-five percent had a close or intimate relationship with an individual(s) with disabilities and 25% had either little or no experience with individuals with disabilities.

KSU is the second largest public institution of higher education in Ohio and one of the 50 Ohio institutions that offer teacher education programs. In 2008, 5.3% of all teacher education candidates recommended for licensure in Ohio attended KSU (Ohio Department of Education Report on the Quality of Teacher Education 2008). The KSU teacher education program is fully accredited through the National Council for the Accreditation of Teacher Education (NCATE) and is considered a premier program in
northeast Ohio with a long-standing tradition in undergraduate and graduate teacher education. The Ohio Board of Regents has approved Kent State University to prepare future educators seeking an Ohio Department of Education license in eleven teacher education licensure programs. These programs include early childhood, middle childhood, adolescent, special education, and others. Regardless of the program area, the Introduction to Exceptionalities class is required by all teacher education licensure programs on all campuses and in all universities in the state. For students enrolled in Kent’s Special Education Program, Introduction to Exceptionalities is a prerequisite to all subsequent courses in their area of concentration. Although this course is mandatory and the only course that specifically addresses students with disabilities that is required of prospective general education teachers, it is not a prerequisite for other courses in these majors and can be taken any time prior to student teaching.

**Instrumentation**

The measurement of teachers’ attitudes about their students and about how best to teach them is difficult and fraught with problems of definition, validity and reliability (Clarebout, Elen, Luyten, & Bamps, 2001; Schommer-Aikins, 2004). Many different measures have been used to assess teachers’ attitudes about students with disabilities and inclusion however, most fail to meet a minimum set of satisfactory psychometric criteria (Antonak & Larrivee, 1995). The following criteria were used in selecting an instrument for this research study:

1. Satisfactory psychometric properties that were technically adequate in terms of validity and reliability.
2. Sufficiently broad enough to encompass items that reflect critical attitudinal variables associated with successful inclusion reported in the literature.

3. Developed within the past ten years. The legislative mandates that have significantly increased the number of students with disabilities who receive all or the majority of their education in the general classroom, and the corresponding shift in roles and responsibilities of general and special education teachers suggest that instruments developed more than a decade ago may not be sensitive to the critical issues of present day inclusion.

4. Developed in the United States. The passage of NCLB (2001) and the Reauthorization of IDEA (2004) are unique to the United States and carry with them provisions that are not operative in other countries.

5. Brevity. Administration would not be a deterrent for its use (Mahat, 2008).

6. Ease of Administration. The survey does not require extensive instructions or trained examiners (Mahat, 2008).

The TATIS-P was the only instrument that met all these criteria. The TATIS-P was originally developed as Assessment of Pre-Service Teacher Attitudes Toward Inclusion Scale (APTATIS) (Cullen & Noto, 2007) and subsequently revised in its current form. According to Cullen & Noto (2007), the APTAIS is a highly defensible instrument for conducting research into pre-service teacher attitudes toward the inclusion of children with disabilities into general education classrooms. This conclusion was based on a multi-step process used to identify and isolate items that reflect satisfactory construct validity, internal validity and reliability. The multi-step process used to develop the
TATIS-P included: generating a pool of survey items; review by a panel of experts; pre-pilot administration; sampling a population of pre-service teachers; and sampling a population of practicing teachers.

Based on a review of the literature, the authors initially generated an item pool of 37 items that reflected three separate types of attitudes that are critical to the success of inclusive education. The three constructs were:

1. Perceptions of students with mild to moderate disabilities in inclusive settings.

   Questions in this construct were designed to measure respondents’ views regarding the effectiveness and efficiency of general education classrooms as the place (location) for educating students with mild to moderate disabilities. (Perception)

2. Beliefs about the efficacy of inclusion. Questions in this construct reflect the respondent’s confidence that students with mild to moderate disabilities can learn and teachers can promote academic and social skills in general education classrooms without requiring too much of the teacher’s time. (Confidence)

3. Beliefs about professional roles and responsibilities. Items in this construct measure respondents’ views about the benefits of team teaching and their willingness to participate in cooperative and/or consultative teaching models. (Collaboration)

Fifteen experts in teacher preparation, educational policy and attitudinal research were recruited to respond to the original 37 items. Their responses included feedback regarding the representativeness and wording of the items, ease of completion and soundness of construction. A revised draft was administered to students enrolled in teacher preparations classes to check for clarity, verify that response categories were
mutually exclusive and exhaustive and collect feedback on content and format. A revised draft consisting of 26 items was administered to 258 pre-service teachers. Analysis of demographic information was fairly typical of trends in teacher preparation programs nation-wide. To assess construct validity, principal components analysis was used. This analysis revealed a number of weak factors and discrepant items that lead to the elimination of twelve items, leaving a final pool of 14 items. Additional analysis of the final pool of 14 items demonstrated strong primary loadings on components that coincided with constructs that the instrument was intended to measure. Cronbach’s Alpha correlation technique was used to assess the reliability of the three components. The alpha reliability coefficient for the total scale was .88 and .84, .82 and .82 for the three components which exceeds the typical “acceptable” reliability coefficient of .70 or higher. The three-factor, 14 item TATIS-P was the result of the multi-step process used by the authors to confirm satisfactory construct validity, internal validity and reliability.

At the request of the authors, this researcher received permission to use Teacher’s Attitudes Toward Inclusion Scale (TATIS-P) (Cullen, et al., 2010), to assess the impact of an introductory special education course on the attitudes toward inclusion of prospective teachers (J. Gregory, personal communication, October 25, 2010. Appendix C). The TATIS-P contained demographic information and 14 survey items divided into three constructs. Demographic information included: a student identification number, the student’s class ranking, major and previous experience with individuals with disabilities. The total of all 14 items provided an overall measure of attitudes toward inclusion. Construct 1 consisted of six survey items and measured the respondents’ perception of
general education classrooms as an effective and efficient place (i.e., location) for educating students with mild to moderate disabilities. Construct 2 included four survey items reflecting the respondent’s confidence that students with mild to moderate disabilities can learn and teachers can promote academic and social skills in general education classrooms. Construct 3 included the final four survey items. Items in this construct measured respondents’ views about the benefits of team teaching and their willingness to participate in cooperative and/or consultative teaching models. The terms Perception (i.e., Construct 1), Confidence (i.e., Construct 2) and Collaboration (i.e., Construct 3) were used to reference the three constructs. Each of the 14 items was rated on a 7 point Likert-like scale from very strongly disagree to very strongly agree. The authors’ decision to use a 7-point scale in place of the original 5-point scale was based on the observation that attitudinal differences are subtle and require a broader scale for accurate assessment (Cullen & Noto, 2007). One reverse scored item was retained in the survey so that we could look for disingenuous responses (J. Gregory, personal communication November 23, 2010).

**Independent Variable: An introductory course in special education**

The trend to educate an increasing number of students with disabilities in general education classrooms demands that general and special education teachers be prepared to assume the roles and responsibilities needed for successful inclusion. Pre-service training has been identified as one of the most prevalent factors influencing teachers’ acceptance of inclusion-based practices (Sharma, et al., 2008, Wilkins, & Nietfeld 2004). Cultivating positive attitudes is an essential aspect of this pre-service training. Requiring
a single introductory special education course is the most common model used to prepare prospective teachers for inclusion.

The purpose of this study was to examine the impact of an introductory special education course on the attitudes toward inclusion of undergraduate prospective teachers. In compliance with federal and state mandates, SPED 23000 Introduction to Exceptionalities is the introductory special education course offered at KSU. It is the only course that specifically addresses students with disabilities that all KSU prospective teachers seeking a teaching license are required to complete.

SPED 23000 Introduction to Exceptionalities introduces participants to student exceptionalities, service delivery/placement options, and the multidisciplinary team process. Its main focus is on the characteristics, definition and the procedures used to identify students with exceptionalities. Topics include the history of special education, legislation, effects of exceptionality, and current issues. General principles and practices of inclusive education as well as implications for teaching and learning in differentiated classrooms are also addressed. These topics are consistent with the knowledge, skills and dispositions articulated in the established teacher standards related to the provision of services to students with disabilities.

During the Fall 2011 semester, four sections of this course were offered at the University’s main campus and six sections were offered at four of the regional campuses. Six instructors teaching a total of eight sections agreed to participate. Two sections were taught online and six sections were traditional face-to-face classes. Four of the classes taught face-to-face met twice weekly and two sections met once weekly. The enrollment
for seven of the eight sections was fifty or fewer students. The maximum enrollment for the eighth section was 175. Among the six instructors, two were assistant professors, three were doctoral students and one was a Director of Special Education for a city school district. This researcher taught two sections of this course. A total of three different textbooks were used with five of the eight sections using the same textbook. While there were differences in the syllabus, textbook, methods of instruction, readings, assignments and exams, the content across all sections of SPED 23000 Introduction to Exceptionalities was consistent with the ORB approved course description and objectives.

**Procedure**

Prior to introducing the research study to students enrolled in SPED 23000 Introduction to Exceptionalities, the instructor for each section of the course was informed of the research project and they were asked to consider their willingness to distribute, collect and send completed surveys to the this researcher. Six of the eight instructors agreed to participate. The two remaining instructors did not respond to multiple attempts to secure their participation, therefore, their reasons for not participating are unknown. Participating instructors provided a copy of their syllabus and responded to a short questionnaire about their instructional methods and course assignments.

At the beginning of the 2011 fall semester, students in eight sections of Introduction to Exceptionalities were invited to participate in this research study. Students were provided with a description of the purpose of the study, directions for completing the
survey, and a brief definition of inclusion and mild to moderate disabilities. This researcher provided this information in person to students in four sections of the course. The instructors for the remaining four sections used a screencast prepared by this researcher to introduce their students to this study (Script for screencast, Appendix F). Participation in the study was voluntary and contingent upon signed consent to participate. Students who declined to participate were not penalized in any way.

Study participants signed an IRB approved consent form (Appendix G and H), provided demographic information and completed the TATIS-P. As a part of the requested demographic information, participants provided the last four digits of their Social Security number on the pre-survey to provide anonymity in responses and to allow the researcher with a means of matching post-course surveys. Participation took approximately 5-10 minutes. For students enrolled in classes that met face to face, a hard copy of the consent form and survey were completed. The instructor was not present while the students completed the surveys. A student volunteer collected the completed surveys, placed them in a sealed envelope addressed to this researcher. Cooperating instructors delivered the sealed envelopes to this researcher. All paper copies of the consent forms and completed survey forms were maintained in a locked cabinet in the office of this researcher. Students enrolled in this course online provided electronic consent and submitted an electronic version of the survey utilizing SurveyMonkey®. The electronic version of this survey was used exclusively with participants completing the course online. During the final week of the 2011 Fall semester, study participants
completed the same survey. Only participants who completed both pre- and post-surveys were included in data analysis.

**Data Analysis**

This researcher utilized the services of KSU’s Research Bureau to analyze data. Original survey forms were maintained by this researcher and copies were given to the personnel at the Research Bureau who entered the data. Statistical analysis was performed by this researcher and personnel at the Research Bureau. SPSS was used to generate descriptive and inferential statistics. Descriptive data included the total number of participants, the number and percentage of participants by year of matriculation, major, experience with individuals with disabilities and mean scores for the total TATIS-P, each of the three TATIS-P constructs (i.e., Perception, Confidence and Collaboration) and each survey item. Histograms were generated to graphically summarize the distributional model for the data. SPSS was used to generate the center, spread, skewness, kurtosis, and presence of outliers. Examination of this information confirmed the normality of the data.

Attitudes toward inclusion as measured by the TATIS-P served as the dependent variable. The independent variable was the state required introductory special education course. Descriptive and inferential statistics were used to answer the three primary research questions:

1. Do attitudes of undergraduate prospective general education teachers change about the inclusion of students with mild to moderate disabilities in general education classrooms after completing a required introductory special education course?
2. Do attitudes of undergraduate prospective special education teachers change about the inclusion of students with mild to moderate disabilities in general education classrooms after completing a required introductory special education course?

3. Do attitudes about inclusion of students with mild to moderate disabilities differ between prospective general and special education teachers enrolled in a required introductory special education course?

**Summary**

To investigate the influence of an introductory special education course on the attitudes of prospective teachers toward inclusion, students enrolled in SPED 23000 Introduction to Exceptionalities at Kent State University in the Fall semester of 2011 were invited to complete the Teachers’ Attitudes Toward Inclusion Survey (TATIS-P) at the beginning and end of this 15 week course. Prior to conducting parametric analysis, the data was explored to test for normality. Descriptive statistics were used to describe the sample population. Inferential statistics were used to answer the research questions. Paired sample dependent t-tests were conducted to determine whether there was a statistically significant difference between pre and post test scores for the total TATIS-P, each of the three TATIS-P constructs and the individual survey items for general education majors and special education majors. Independent t-test were conducted to determine whether there was a statistically significant difference in attitudes toward inclusion between prospective general and special education teachers enrolled in a required introductory special education course.
CHAPTER IV
RESULTS

The purpose of this study was to determine the effect of an introductory special education course on the attitudes of prospective teachers toward inclusion. The study examined the pre to post attitudes of prospective general and special education teachers enrolled in SPED 23000 Introduction to Exceptionalities at Kent State University in the Fall of 2011, and compared the attitudes of prospective general education and special education teachers. The total score of the TATIS-P 14-item survey provided an overall measure of attitudes toward inclusion. Attitudes were further explored along 3 constructs of the TATIS-P: attitudes toward students with mild to moderate disabilities in inclusive settings; beliefs about the efficacy of inclusion; and beliefs about professional roles and responsibilities. Finally, responses to each of the 14 TATIS-P items were analyzed.

Descriptive Statistics

In the fall of 2011, Kent State University main and regional Campuses offered 10 sections of SPED 23000 Introduction of Exceptionalities taught by 8 different instructors. The six instructors who agreed to participate taught eight of the ten sections. Three hundred and two students completed the pretest and 247 students completed the posttest. Due to absences, withdrawals, or student choice to decline participation, 51 students enrolled in the course did not complete either the pre- or post-survey and were not included as part of the sample. Non-education majors (N=44) were also excluded from
the statistical analysis. A total of 207 education majors (165 general education and 42 special education), comprised the sample population for statistical analysis.

**General Findings**

The pre and post-test mean scores for the Total TATIS-P, the three TATIS-P Constructs and each survey item were compared to examine attitudinal trends. The TATIS-P pre and post-test mean scores are presented in Table 2 for both general and special education teacher candidates.

General education majors reported more positive attitudes toward inclusion as evidenced by a higher total TATIS-P mean score and higher mean scores in each of the three TATIS-P constructs after completing SPED 23000 Introduction to Exceptionalities. The mean scores for 12 survey items increased pre to post for prospective general education teachers while the mean score for two items decreased.

Special education majors reported more positive attitudes toward inclusion as evidenced by a higher post-test total TATIS-P mean score and higher post-test mean scores in Construct 1 - Perceptions and Construct 2 - Confidence. The mean score of Construct 3 - Collaboration decreased on the part of prospective special education teachers after completing an introductory special education course. Prospective special education teachers rated 11 of the 14 survey items higher at the end of the course, the rating of one item remained the same and the ratings for two survey items decreased.

These results suggest that from pre to post prospective general and special education teachers improved their attitudes toward inclusion. However, many of the increases in
pre to post mean scores did not reach statistical significance, therefore limiting the changes that were a direct result of an introductory special education course.

Table 2

*Pre and Post TATIS-P Mean Scores for prospective general and special education teachers*

<table>
<thead>
<tr>
<th></th>
<th>General Pre N 165</th>
<th>Education Post N 165</th>
<th>Special Pre N 42</th>
<th>Education Post N 42</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total TATIS-P</strong></td>
<td>63.11 (8.36)</td>
<td>*64.73 (10.57)</td>
<td>61.95 (8.68)</td>
<td>*65.02 (10.83)</td>
</tr>
<tr>
<td><strong>Construct 1. Attitudes toward students with disabilities in inclusive settings (Perceptions)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. All students with mild to moderate disabilities should be educated in regular classrooms with non-handicapped peers to the fullest extent possible.</td>
<td>4.56</td>
<td>*4.90</td>
<td>4.57</td>
<td>4.86</td>
</tr>
<tr>
<td>2. It is seldom necessary to remove students with mild to moderate disabilities from regular classrooms in order to meet their educational needs.</td>
<td>4.08</td>
<td>4.01↓</td>
<td>4.21</td>
<td>4.60</td>
</tr>
<tr>
<td>3. Most or all separate classrooms that exclusively serve students with mild to moderate disabilities should be eliminated.</td>
<td>2.82</td>
<td>2.83</td>
<td>2.39</td>
<td>2.76</td>
</tr>
<tr>
<td>4. Most or all regular classrooms can be modified to meet the needs of students with mild to moderate disabilities.</td>
<td>4.76</td>
<td>*5.00</td>
<td>4.95</td>
<td>5.10</td>
</tr>
<tr>
<td>5. Students with mild to moderate disabilities can be more effectively educated in regular classrooms as opposed to special education classrooms.</td>
<td>3.92</td>
<td>*4.16</td>
<td>3.83</td>
<td>*4.29</td>
</tr>
<tr>
<td>6. Inclusion is a more efficient model for educating students with mild to moderate disabilities because it reduces transition time (i.e., the time required to move from one setting to another).</td>
<td>4.23</td>
<td>*4.51</td>
<td>4.10</td>
<td>*4.67</td>
</tr>
<tr>
<td><strong>Construct 2. Beliefs about the efficacy of inclusion (Confidence)</strong></td>
<td>18.24 (3.00)</td>
<td>18.33 (3.17)</td>
<td>16.98 (3.32)</td>
<td>*18.29 (3.42)</td>
</tr>
<tr>
<td>7. Students with mild to moderate disabilities should be taught in regular classes with non-disabled students because they will not require too much of the teacher’s time.</td>
<td>3.36</td>
<td>3.31↓</td>
<td>3.24</td>
<td>*3.95</td>
</tr>
</tbody>
</table>
8. I believe including students with mild/moderate disabilities in regular classrooms is effective because they can learn the academic skills necessary for success.  

<table>
<thead>
<tr>
<th>Construct 3. Beliefs about professional roles and responsibilities (Collaboration)</th>
<th>20.71 (3.27)</th>
<th>21.22 (3.90)</th>
<th>20.88 (3.49)</th>
<th>20.46↓ (4.01)</th>
</tr>
</thead>
<tbody>
<tr>
<td>11. I would welcome the opportunity to team teach as a model for meeting the needs of students with mild/moderate disabilities in regular classrooms.</td>
<td>5.21</td>
<td>5.38</td>
<td>5.34</td>
<td>5.34</td>
</tr>
<tr>
<td>12. All students benefit from team teaching: that is, the pairing of a general and a special education teacher in the same classroom.</td>
<td>4.90</td>
<td>5.02</td>
<td>4.78</td>
<td>4.51↓</td>
</tr>
<tr>
<td>13. The responsibility for educating students with mild/moderate disabilities in regular classrooms should be shared between general and special education teachers.</td>
<td>5.32</td>
<td>5.34</td>
<td>5.29</td>
<td>5.34</td>
</tr>
<tr>
<td>14. I would welcome the opportunity to participate in a consultant teacher model (i.e., regular collaborative meetings between special and general education teachers to share ideas, methods, and materials) as a means of addressing the needs of students with mild/moderate disabilities in regular classrooms.</td>
<td>5.32</td>
<td>5.43</td>
<td>5.46</td>
<td>5.27↓</td>
</tr>
</tbody>
</table>

Note: * = p < .05
Standard deviations are in parenthesis
↓ = mean score decreased from pre to post

Overview of statistically significant findings

Paired sample dependent t-tests were conducted to compare TATIS-P pre- and post-test mean scores for prospective general education teachers and prospective special education teachers. Independent t-tests were conducted to determine whether prospective general and special education teachers differed in their attitudes toward inclusion. The findings of this study are summarized on Table 3. The highlighted areas reflect changes
in attitudes toward inclusion at a level of statistical significance \( p < .05 \). The descriptive
and inferential statistics for each research question are presented separately in detail.

Table 3

**Summary of Statistically Significant Findings**

<table>
<thead>
<tr>
<th>Group → Components of TATIS-P↓</th>
<th>General Education Majors</th>
<th>Special Education Majors</th>
<th>Attitudes of General compared to Special Education Majors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total TATIS-P</td>
<td>Statistically significant difference</td>
<td>Statistically significant difference</td>
<td>No statistically significant difference</td>
</tr>
<tr>
<td>Construct 1 Perceptions #1-6</td>
<td>Statistically significant difference</td>
<td>Statistically significant difference</td>
<td>No statistically significant difference</td>
</tr>
<tr>
<td>Construct 2 Confidence # 7-10</td>
<td>No statistically significant difference</td>
<td>Statistically significant difference</td>
<td>Pre-Test Statistically significant difference Post-Test No statistically significant difference</td>
</tr>
<tr>
<td>Construct 3 Collaboration # 11-14</td>
<td>No statistically significant difference</td>
<td>No statistically significant difference</td>
<td>No statistically significant difference</td>
</tr>
<tr>
<td>Specific survey items</td>
<td>Statistically significant difference for items # 1, 4, 5, &amp; 6</td>
<td>Statistically significant difference for items # 5, 6, 7 &amp; 8</td>
<td>Statistically significant difference for #3 &amp;10 at pretest &amp; #2, 7, 10, &amp;12 at posttest</td>
</tr>
</tbody>
</table>

**Research Question 1**

1. Do attitudes of undergraduate prospective general education teachers change about
the inclusion of students with mild to moderate disabilities in general education
classrooms after completing a required introductory special education course?

Paired-samples t-test were conducted to compare the pre and post mean scores of the
total TATIS-P, the three TATIS-P constructs and each survey item for prospective
general education teachers. An exploratory data analysis was conducted to determine if
the score distribution was normally distributed. TATIS-P post-test scores were
approximately normally distributed for prospective general education teachers, as assessed by visual inspection of the histogram displayed in Figure 1. Further exploration revealed skewness of .365 ($SE = .189$) and kurtosis of -.082 ($SE = .376$) both of which were within acceptable limits.

![Histogram for Prospective General Education Teachers](image)

**Figure 1.** Histogram for Prospective General Education Teachers

The results of the paired-sample t-tests for the total TATIS-P and the three TATIS-P constructs for prospective general education teachers are displayed in Table 4. These findings suggest that SPED 23000 Introduction to Exceptionalities positively changed the attitudes of prospective general education teachers toward student with mild to moderate disabilities in inclusive settings. Prospective general education teachers’ perception of the effectiveness and efficiency of general education classrooms as the place (i.e., location) for educating students with mild to moderate disabilities significantly improved as evidenced in the difference in the pre and post-test mean scores for Construct 1 - Perceptions. The mean scores for Construct 2 - Confidence and Construct 3 - Collaboration improved, but did not reach the level of statistical significance. The non-
significant findings for Construct 2 and 3 indicate that the required introductory special
education course did not change their attitudes about their confidence that students with
mild to moderate disabilities can learn and teachers can promote academic and social
skills in general education classrooms or their beliefs about the benefits of team teaching
and their willingness to participate in cooperative and/or consultative teaching models.

Table 4

<table>
<thead>
<tr>
<th>Prospective General Education Teachers Pre/Post TATIS-P Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>M(SD)</td>
</tr>
<tr>
<td>Total TATIS-P</td>
</tr>
<tr>
<td>Construct 1</td>
</tr>
<tr>
<td>Perception</td>
</tr>
<tr>
<td>Construct 2</td>
</tr>
<tr>
<td>Confidence</td>
</tr>
<tr>
<td>Construct 3</td>
</tr>
<tr>
<td>Collaboration</td>
</tr>
<tr>
<td>Note * = p &lt; .05</td>
</tr>
</tbody>
</table>

Analysis of the 14 TATIS-P survey items resulted in a statistically significant
increase on four items shown in Table 5.

At the end of the course, prospective general education teachers reported significantly
more favorable attitudes toward students with mild to moderate disabilities being
educated to the maximum extent possible in general education classrooms with their
nondisabled peers, as reflected in survey item 1. The responses to survey items 4, 5 and 6
indicated that prospective general education teachers significantly increased their beliefs
that the general education classroom, with modifications, offered students with mild to
moderate disabilities a more efficient and effective educational environment. While only four of the fourteen survey items for general educator candidates reached a level of statistical significance, the fact that the mean scores for twelve survey items increased suggests a trend in more positive attitudes toward inclusion.

Table 5

*Prospective General Education Teachers: Statistically Significant TATIS-P Survey Items*

<table>
<thead>
<tr>
<th>TATIS-P Survey Items</th>
<th>n</th>
<th>Pretest M(SD)</th>
<th>Posttest M(SD)</th>
<th>difference</th>
<th>t</th>
<th>df</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. All students with mild to moderate disabilities should be educated in regular classrooms with non-handicapped peers to the fullest extent possible.</td>
<td>165</td>
<td>4.56 (1.30)</td>
<td>4.90 (1.37)</td>
<td>-.333</td>
<td>-2.58</td>
<td>164</td>
<td>*p&lt;.011</td>
</tr>
<tr>
<td>4. Most or all regular classrooms can be modified to meet the needs of students with mild to moderate disabilities.</td>
<td>164</td>
<td>4.76 (1.20)</td>
<td>5.00 (1.20)</td>
<td>-.244</td>
<td>-2.08</td>
<td>163</td>
<td>*p&lt;.039</td>
</tr>
<tr>
<td>5. Students with mild to moderate disabilities can be more effectively educated in regular classrooms as opposed to special education classrooms.</td>
<td>164</td>
<td>3.92 (1.04)</td>
<td>4.16 (1.23)</td>
<td>-.238</td>
<td>-2.34</td>
<td>163</td>
<td>*p&lt;.020</td>
</tr>
<tr>
<td>6. Inclusion is a more efficient model for educating students with mild to moderate disabilities because it reduces transition time.</td>
<td>163</td>
<td>4.23 (1.03)</td>
<td>4.51 (1.30)</td>
<td>-.276</td>
<td>-2.42</td>
<td>162</td>
<td>*p&lt;.016</td>
</tr>
</tbody>
</table>

Note *= p <.05

**Research Question 2**

2. Do attitudes of undergraduate prospective special education teachers change about the inclusion of students with mild to moderate disabilities in general education classrooms after completing a required introductory special education course?
Paired-samples t-test were conducted to compare the pre and post mean scores of the total TATIS-P, the three TATIS-P constructs and each survey item for prospective special education teachers. An exploratory data analysis was conducted to determine if the distribution of scores was normally distributed. TATIS-P post-test scores were approximately normally distributed for prospective special education teachers, as assessed by visual inspection of the histogram displayed in Figure 2. Further exploration revealed skewness of -0.469 (SE = 0.365) and kurtosis of 0.315 (SE = 0.717) both of which were within acceptable limits.

![Figure 2. Histogram for Prospective Special Education Teachers](image)

The results of the paired-sample dependent t-tests for the total TATIS-P, the three TATIS-P constructs, and the total TATIS-P for prospective special education teachers are displayed in Table 6. These findings suggest that SPED 23000 Introduction to Exceptionalities positively changed the attitudes of prospective special education teachers toward student with mild to moderate disabilities in inclusive settings. This course also changed the perception of prospective special education teachers about the effectiveness
and efficiency of general education classrooms as the place (i.e., location) for educating students with mild to moderate disabilities as evidenced in the statistically significant change in Construct 1 - Perceptions. There was a statistically significant change in Construct 2 - Confidence. These results indicated that prospective special education teachers significantly increased their confidence that students with mild to moderate disabilities can learn and teachers can promote academic and social skills in general education classrooms. The post-test mean score for Construct 3 - Collaboration was lower than the pre-test mean score. While the difference did not reach a level of statistical significance, the decrease signals a negative trend in the views of prospective special education teachers regarding the benefits of team teaching and their willingness to engage in cooperative and consultative teaching models.

Table 6

<table>
<thead>
<tr>
<th></th>
<th>Pretest</th>
<th>Posttest</th>
<th>difference</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total TATIS-P</td>
<td>41</td>
<td>61.95</td>
<td>65.02</td>
<td>-3.07</td>
<td>40</td>
<td>.048</td>
</tr>
<tr>
<td>Construct 1 Perception</td>
<td>42</td>
<td>24.02</td>
<td>26.21</td>
<td>-2.19</td>
<td>41</td>
<td>.006</td>
</tr>
<tr>
<td>Construct 2 Confidence</td>
<td>41</td>
<td>16.98</td>
<td>18.29</td>
<td>-1.31</td>
<td>40</td>
<td>.025</td>
</tr>
<tr>
<td>Construct 3 Collaboration</td>
<td>41</td>
<td>20.88</td>
<td>20.46</td>
<td>.41</td>
<td>40</td>
<td>.499</td>
</tr>
</tbody>
</table>

Note *= p <.05

Paired sample dependent t-tests were conducted to explore changes in attitudes reflected in each of the 14 survey items. The mean scores for eleven items increased, the mean score for one item remained the same and the mean score for two items decreased.
Table 7 displays the four TATIS-P survey items that reached a level of statistical significance. The responses to items 5 and 6 indicated that prospective special education teachers significantly increased their beliefs that general education classrooms are a more efficient and effective educational environment for students with mild to moderate disabilities. Prospective special education teachers increased their belief in the ability of students with mild to moderate disabilities to learn the academic skills needed for success in the general education classroom without requiring too much of the teacher’s time, as evidenced by the statistically significant change in items 7 and 8.

Table 7

Prospective Special Education Teachers: Statistically Significant TATIS-P Survey Items

<table>
<thead>
<tr>
<th>TATIS-P Survey Items</th>
<th>n</th>
<th>Pretest</th>
<th>Posttest</th>
<th>difference</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Students with mild to moderate disabilities can be more effectively educated in regular classrooms as opposed to special education classrooms.</td>
<td>42</td>
<td>3.83 (1.12)</td>
<td>4.29 (1.31)</td>
<td>-0.452</td>
<td>-2.37</td>
<td>41</td>
<td>*0.022</td>
</tr>
<tr>
<td>6. Inclusion is a more efficient model for educating students with mild to moderate disabilities because it reduces transition time</td>
<td>42</td>
<td>4.10 (1.19)</td>
<td>4.67 (1.26)</td>
<td>-0.571</td>
<td>-3.05</td>
<td>41</td>
<td>*0.004</td>
</tr>
<tr>
<td>7. Students with mild to moderate disabilities should be taught in regular classes with non-disabled students because they will not require too much of the teacher’s time.</td>
<td>42</td>
<td>3.24 (1.32)</td>
<td>3.95 (1.34)</td>
<td>-0.714</td>
<td>-2.79</td>
<td>41</td>
<td>*0.008</td>
</tr>
<tr>
<td>8. I believe including students with mild/ moderate disabilities in regular classrooms is effective because they can learn the academic skills necessary for success.</td>
<td>42</td>
<td>4.55 (1.33)</td>
<td>4.98 (1.14)</td>
<td>-0.429</td>
<td>-2.37</td>
<td>41</td>
<td>*0.023</td>
</tr>
</tbody>
</table>

Note *= p <.05
Research Question 3

3. Do attitudes about the inclusion of students with mild/moderate disabilities differ between prospective general and special education teachers enrolled in a required introductory special education course?

Pre-Test Differences

Independent t-tests were conducted to compare the attitudes toward inclusion between prospective general and special education teachers at the beginning of the course. The results are displayed in Table 8. At the beginning of the SPED 23000 Introduction to Exceptionalities there was no statistical difference between the pre-test mean scores of general and special education majors’ overall attitudes toward inclusion, their attitudes toward students with disabilities in inclusive settings or their beliefs about professional roles and responsibilities. There was a statistically significant difference between general and special education majors’ beliefs about the efficacy of inclusion. The mean score for Construct 2 - Confidence among prospective general education teachers was 18.25 and 16.98 among prospective special education teachers suggesting that prospective general education teachers started the course with more confidence that students with mild to moderate disabilities can learn and teachers can promote academic and social skills in general education classrooms. When the attitudes of individual TATIS-P survey items were compared, the attitudes of prospective general and special education teachers differed on two survey items. There was a significant difference in the scores for survey item #3 of general education majors (M= 2.82, SD=1.25) and special education majors (M=2.36, SD =1.19); t (205)―2.16, p = .022. These results suggest that at the beginning
of the course general education majors were more favorable than special education majors about the elimination of most or all separate classrooms that exclusively serve students with mild to moderate disabilities. There was also a significant difference in the scores for survey item #10 of general education majors (M= 4.45, SD =1.06) and special education majors (M= 3.86, SD =1.31); t (205)= -3.06, p = .004. Given the fact that this survey item was reverse scored, these results suggest that at the beginning of the course special education majors were less confident than general education majors in the ability of general education teachers to succeed with students with mild to moderate disabilities.

Table 8

<table>
<thead>
<tr>
<th></th>
<th>M (SD)</th>
<th>n</th>
<th>Gen Ed</th>
<th>Sp Ed</th>
<th>difference</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total TATIS-P</td>
<td>63.01 (8.35)</td>
<td>207</td>
<td>61.76 (8.66)</td>
<td>1.06</td>
<td>-.706</td>
<td>206</td>
<td>.481</td>
<td></td>
</tr>
<tr>
<td>Construct 1</td>
<td>24.34 (4.66)</td>
<td>204</td>
<td>23.85 (4.28)</td>
<td>.31</td>
<td>-.396</td>
<td>203</td>
<td>.693</td>
<td></td>
</tr>
<tr>
<td>Perception</td>
<td>18.25 (3.02)</td>
<td>204</td>
<td>16.98 (3.32)</td>
<td>1.15</td>
<td>-2.19</td>
<td>203</td>
<td>*.030</td>
<td></td>
</tr>
<tr>
<td>Construct 2</td>
<td>20.72 (3.28)</td>
<td>207</td>
<td>20.88 (3.49)</td>
<td>.033</td>
<td>058</td>
<td>206</td>
<td>.954</td>
<td></td>
</tr>
<tr>
<td>Confidence</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construct 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collaboration</td>
<td>Note *= p &lt;.05</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Post-Test Differences

Independent t-tests were conducted to compare the attitudes toward inclusion between prospective general and special education teachers at the end of the course. There was no significant difference in the total TATIS-P scores or the scores for each of the three TATIS-P Constructs. The results are displayed in Table 9. These results suggest that
after completing the required introductory special education course, prospective general and special education teachers shared similar attitudes toward the inclusion of students with mild to moderate disabilities in inclusive settings, beliefs about the efficacy of inclusion and beliefs about professional roles and responsibilities.

Table 9

Post-Test Differences Between Prospective General and Special Education Teachers

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Gen Ed</th>
<th>Sp Ed</th>
<th>difference</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total TATIS-P</td>
<td>206</td>
<td>64.65 (10.53)</td>
<td>64.26 (11.69)</td>
<td>-.387</td>
<td>-.20</td>
<td>205</td>
<td>.836</td>
</tr>
<tr>
<td>Construct 1</td>
<td>202</td>
<td>25.44 (5.75)</td>
<td>26.05 (5.10)</td>
<td>.592</td>
<td>.60</td>
<td>201</td>
<td>.547</td>
</tr>
<tr>
<td>Perception</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construct 2</td>
<td>200</td>
<td>18.32 (3.18)</td>
<td>18.29 (3.42)</td>
<td>-.014</td>
<td>-.02</td>
<td>199</td>
<td>.981</td>
</tr>
<tr>
<td>Confidence</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construct 3</td>
<td>203</td>
<td>21.21 (3.90)</td>
<td>20.46 (4.01)</td>
<td>-.745</td>
<td>-1.09</td>
<td>202</td>
<td>.278</td>
</tr>
<tr>
<td>Collaboration</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Note * = p &lt; .05</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

When the post-test responses to individual TATIS-P survey items were compared, a statistically significant difference was found in the attitudes of prospective general and special education teachers on four survey items (Table 10). These findings suggest that prospective special education teachers, compared to prospective general education teachers, believed that meeting the educational needs of students with mild to moderate disabilities seldom required removal from the general education classroom, and would not require too much of the teacher’s time. Consistent with the pre-test results, special education majors continued to be less confident than general education majors in the ability of general education teachers to succeed with students with mild to moderate disabilities.
disabilities. Prospective general education teachers were more positive than prospective special education teachers that team teaching would benefit all students.

Table 10

*Post-Test Differences Between Prospective General and Special Education Teachers for Specific TATIS-P Survey Items*

<table>
<thead>
<tr>
<th>TATIS-P Survey Items</th>
<th>n</th>
<th>Gen Ed</th>
<th>Sp Ed</th>
<th>difference</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. It is seldom necessary to remove students with mild to moderate disabilities from regular classrooms in order to meet their educational needs.</td>
<td>206</td>
<td>4.01</td>
<td>4.60</td>
<td>.589</td>
<td>2.53</td>
<td>205</td>
<td>.012</td>
</tr>
<tr>
<td>7. Students with mild to moderate disabilities should be taught in regular classes with non-disabled students because they will not require too much of the teacher’s time.</td>
<td>204</td>
<td>3.29</td>
<td>3.95</td>
<td>.658</td>
<td>2.99</td>
<td>203</td>
<td>.003</td>
</tr>
<tr>
<td>10. I find that general education teachers often do not succeed with students with mild to moderate disabilities, even when they try their best.</td>
<td>204</td>
<td>4.57</td>
<td>4.00</td>
<td>-.567</td>
<td>-2.66</td>
<td>203</td>
<td>.008</td>
</tr>
<tr>
<td>12. All students benefit from team teaching; that is, the pairing of a general and a special education teacher in the same classroom.</td>
<td>204</td>
<td>5.02</td>
<td>4.51</td>
<td>-.512</td>
<td>-2.18</td>
<td>204</td>
<td>.031</td>
</tr>
</tbody>
</table>

Note * = p < .05

**Summary**

This study investigated the impact of an introductory special education course on the attitudes of prospective general and special education teachers' about the inclusion of students with mild to moderate disabilities in general education classrooms. The Teachers’ Attitudes Toward Inclusion Survey (TATIS-P) was used to assess the attitudes
of prospective educators about the inclusion of students with mild to moderate disabilities.

The responses on the TATIS-P demonstrated that an introductory special education course affected the overall attitudes of prospective general and special education teachers towards the inclusion of students with mild to moderate disabilities in general education classrooms. Prospective general and special educators did not differ in their overall attitudes toward inclusion as evidenced by non-significant pre and post test differences on the total TATIS-P mean scores.

Further analysis of the three constructs that comprise the TATIS-P and individual survey items revealed mixed results. Paired-sample t-tests revealed statistically significant differences among prospective general education teachers on one of the three TATIS-P constructs and four of the fourteen individual survey items. Among prospective special education teachers, there was a statistically significant difference on two of the three TATIS-P constructs and four of the fourteen individual survey items. At the beginning of the required introductory special education course there was a difference between prospective general and special education teachers’ beliefs related to Construct 2- Confidence and two survey items. At the end of the course, prospective general and special education teachers’ overall attitudes toward inclusion and beliefs related to the three TATIS-P constructs did not differ. However, the difference between prospective general and special education teacher’ post-test mean scores on four TATIS-P survey items reached a level of statistical significance.
The results provided modest support that an introductory special education course affects the attitudes of prospective teachers about the inclusion of students with mild to moderate disabilities in general education classrooms. The analysis and interpretation of the results are presented in the discussion chapter.
CHAPTER V
DISCUSSION

The attitudes of prospective general and special education teachers toward inclusion improved after completing an introductory special education course. Additionally, after completing this course, general and special majors expressed similar attitudes toward inclusion. These results suggest that participants in the current study share an increased belief that when teachers collaborate in the provision of educational services, the general education classroom is an environment in which students with mild to moderate disabilities belong and can learn. These beliefs are important because they reflect attitudes correlated with improved outcomes for students with disabilities.

The TATIS-P is divided into three constructs with each construct representing a set of attitudes research has demonstrated are critical to the success of inclusive education. The importance and implications of the findings of this study are discussed in the context of these three constructs and the composite TATIS-P scores.

Construct 1. Attitudes toward students with disabilities in inclusive settings

Construct 1 focuses on attitudes related to the effectiveness and efficiency of educating students with mild to moderate disabilities in general education classrooms. The results of the present study found the attitudes of both prospective general and special educators toward students with disabilities in inclusive settings significantly changed. This means that after completing SPED 23000 Introduction to Exceptionalities,
prospective general and special education teachers shared an increased belief that the general education classroom could be modified to meet the needs of students with mild to moderate disabilities and was more effective and efficient than special education classrooms for educating these students. Consistent with the vision set forth by Madeline Will (1986) and criteria needed for successful inclusion, these attitudes reflect an increased willingness to bring educational services to the student rather requiring the student to leave the general education environment to receive his/her educational services.

These findings are in contrast to research conducted prior to the enactment of NCLB and IDEA 1997 and 2004. In a review of ten studies conducted between 1971 and 1994, only 33% of general education teachers agreed that general education classrooms were the “best” academic or social environment for students with disabilities, or that full-time inclusion provided benefits relative to part-time inclusion (Scruggs, & Mastropieri, 1996). During this time period, participation in the general education classroom was viewed as a privilege and it was believed that students with disabilities should be educated in separate special education classrooms by experts with specialized training (Causton-Theoharis & Theoharis, 2008; Scruggs & Mastropieri, 1996). Although it can be argued that these practices reflected the preferred separate, specialized service delivery model characteristic of that time period, they are inconsistent with the current practices that characterize successful inclusion.

Consistent with the findings of other studies conducted since the enactment of NCLB and IDEA 1997 and 2004 (Blecker, & Boakes, 2010; Brown, et al., 2008; Cameron, &
Cook, 2007; Lambert, et al., 2005; Martinez 2003; Reeves, Robertson, & Taylor, 2011; Shade, & Stewart, 2001; Shippen, et al., 2005; Singh, 2006; and Van Laarhoven, et al., 2007), the results of the current study reflect a growing awareness and acceptance of including students with mild to moderate disabilities as members and participants in general education classrooms.

These findings have important implications for students with mild to moderate disabilities. Teachers' attitudes toward students with disabilities in inclusive classrooms are powerful factors in these students being accepted by peers, reporting less loneliness, maintaining their self-esteem, achieving higher academic gains and experiencing more success after high school (Campbell, Dodson, & Bost, 1985; Luftig, 1985; Reschly & Christensen, 2006, Rosenzweig, 2009). Students with disabilities have historically exhibited an alarmingly low rate of school completion compared to their peers in general education (Reschly & Christensen, 2006). According to Grannis (1994), student engagement is the critical variable in dropout prevention and intervention efforts. An important aspect of student engagement is a student’s sense of belonging at school. Belonging has been described as a student’s sense of being accepted, valued, included, and encouraged by teachers and peers as an important member in the life and activity of the class (Goodenow & Grady, 1993). Students with disabilities educated in resource or self-contained classrooms are often perceived as “outsiders”, carry the stigma of “being different” and experience alienation (Will, 1986). Successful inclusive settings convey a message to all students that students with mild to moderate disabilities are members of the larger learning community. The agreement that favors an educational service
delivery model that includes rather than separates students with mild to moderate 
disabilities, demonstrated by the results of this study paves the way for these students to 
experience an increased sense of belonging, treatment as valued members of the 
educational community and a level of school engagement consistent with higher 
graduation rates (Jorgensen, McSheehan, & Sonnenmeier, 2007, Vaughn, et al., 2007).

Survey item #6 states that inclusion is a more efficient model for educating students 
with mild to moderate disabilities because it reduces transition time. The results of the 
present study found that both prospective general and special educators significantly 
increased their agreement with this statement between the two administrations of this 
survey. This finding suggests that the prospective teachers in this study learned to 
recognize the importance of maximizing valuable instructional time based on this class 
experience. This is important because when the time lost due to movement from one 
setting to another and scheduling that fragments a student’s instruction is reduced 
(Frattura & Topinka, 2006), students with mild to moderate disabilities experience 
increased opportunities and instructional support to learn core academic content 
commensurate with their grade level (Browder, et al., 2006). Increasing the time 
dedicated to instruction is consistent with the legal mandate for involvement and 
participation in the general curriculum (IDEA 1997, 2004), reduces transition difficulties, 
and correlates with improved student outcomes.

This study revealed one exception to the positive change in attitudes toward students 
with disabilities in inclusive settings. Both prospective general and special education 
teachers disagreed with the statement: Most or all separate classrooms that exclusively
serve students with mild to moderate disabilities should be eliminated (survey item #3).
The pre-test mean score for general and special educators suggests that when prospective teachers started the course they were not in favor of eliminating separate special education classrooms. Their attitudes did not change after completing the course. These findings are consistent with other studies in which respondents believed that special education classrooms should be maintained (Berry, 2010; Garriott, et al., 2003; Shade & Stewart, 2001).

Frattura & Topinka (2006) offer three reasons that may account for a belief that special education classrooms should be maintained. The curriculum content of Introduction to Exceptionalities provided the participants in the present study with information related to the reasons offered by Frattura & Topinka (2006).

1. This is a practice supported by federal law. While on the one hand IDEA clearly supports students with disabilities being educated, to the maximum extent possible, with their nondisabled peers, Section 300.115, section 612(a)(5) of the Act requires each public agency to ensure that a continuum of alternative placements is available to meet the needs of students with disabilities.

2. There are scholars who support the continuation of separate classrooms. There are those who contend that general education classrooms cannot offer the intense, individualized instruction students with mild to moderate disabilities require (Kauffman, et al., 2005; Zigmond 2003).

3. This is a practice supported through teacher certification and university preparation programs. Many universities have separate preparation programs where faculty
between special education and general education do not co-design their programs and curriculum and often times never work together (Causton-Theoharis, Theoharis, Orsati, & Cosier, 2011). The continued practice of certifying/licensing teachers according to categorical specialties reflects a mindset that supports specialization versus inclusion (Sailor 2008).

Although speculative, it is possible that prospective teachers’ disagreement with this item on the survey reflected the influence of their own personal experiences while attending public school, their understanding of each school district’s legal mandate to provide a continuum of alternative placement options, their agreement with some leaders in the field of special education, and their perception of the need to maintain separate programs conveyed by separate teacher preparation programs and specialized teacher licensure.

**Construct 2. Beliefs about the efficacy of inclusion**

Construct 2 focuses on the respondent’s confidence that students with mild to moderate disabilities can learn and teachers can promote academic and social skills in general education classrooms without requiring too much of the teacher’s time. Survey items #8 and #9 address the effectiveness of the general education classroom for students with mild to moderate disabilities to learn academic and social skills. After completing the introductory special education course, both prospective general and special education teachers significantly increased their belief that students with mild to moderate disabilities could learn the academic skills necessary for success in the general education classroom (survey item #8). This represents a departure from the practice of educating
students who deviate from the norm or do not meet the expectations of grade-level instruction in separate classrooms for part or all of the day (Frattura & Topinka, 2006, Sailor, 2008) and the belief that separate learning classrooms for students with learning disabilities are necessary due to a need for intensive, individualized instruction, special materials, and different teaching strategies in an alternative instructional environment (Kauffman, et al., 2005; Maloney, 1995).

The confidence that students with mild to moderate disabilities, with support, are capable of learning the grade-level academic content in the general education classroom demonstrated by the participants in the current study is important because it is consistent with the legal requirement for progress and participation in the general curriculum and implies higher expectations. According to Ysseldyke, et al. (2004), raising expectations for students with disabilities can set off a continuous chain of positive results. Raised expectations, communicated in both explicit and subtle ways, can lead to increased participation, improved instruction, and thus, improved performance (Jorgensen, et al., 2007; Kim, 2011). To illustrate this point, in a study of 11,000 students in the United States, Blackorby, et al., (2005) reported students with disabilities who spent more time in general classrooms had higher scores on achievement tests, were absent less, and performed closer to grade level than their peers who received their instruction in resource or self-contained classrooms.

In the present study the attitudes of prospective general and special educator’s about the effectiveness of the general education classroom for promoting social skills did not change. However, at the beginning and the end of the course their rating of item #9
demonstrates their agreement that general education classrooms provide an environment that fosters the development of social skills necessary for success.

The confidence that students with mild to moderate disabilities can learn both academic and social skills within the general education classroom demonstrated by the participants in this study represents a critical step in preparing these students for further education, employment, and independent living. This preparation is important because it is consistent with the purpose of special education (Federal Register, 2007, §300.1) and correlated with improved student outcomes (Campbell, et al., 1985; Luftig, 1985; Pavri, & Luftig, 2000; Reschly & Christensen, 2006, Rosenzweig, 2009). Inadequate access to the academic and social resources available in the general education setting, result in high rates of course failure, poor test scores, and exceedingly high dropout rates for students with disabilities (Swain, 2012). By any standards, these consequences are inconsistent with preparing these students for further education, employment, and independent living. Conversely, access to the academic and social resources in general education classrooms promote higher rates of achievement, increased graduation rates and preparation for improved adult outcomes.

While prospective teachers agreed that students with mild to moderate disabilities could experience academic and social success in general education classrooms, both general and special education majors indicated that educating these students might require too much of the teacher’s time. Prospective general education teachers’ rating of survey item #7 reflected concerns about the amount of teacher time that would be needed to meet the needs of students with mild to moderate disabilities in the general education
classroom. (pre-test mean score =3.36, post-test mean score 3.31). In a meta-analysis conducted by Scruggs, et al. (2007), they concluded that even in co-taught classrooms instruction is generally whole class and lecture driven. Practices known to be effective and frequently recommended were only rarely observed. The concerns expressed by prospective general education teachers in this study may reflect an awareness of the additional time required to plan and implement recommended evidence-based strategies (e.g., collaborative learning, cooperative teaching, peer tutoring, differentiated instruction, response to intervention, positive behavior supports, etc.).

In contrast, after completing the course, prospective special education teachers were neutral (post-test mean score=3.95) regarding the requirement of teacher’s time. This post-test neutral rating was significantly different than their pre-test rating of survey item #7 (pre-test mean score = 3.24). Although speculative, it is possible that after completing SPED 23000 Introduction to Exceptionalities which stresses teacher collaboration, prospective special education teachers’ viewed themselves as partnering with general education teachers to educate students with mild to moderate disabilities, thus reducing the amount of time required of the general education teacher to meet the educational needs of students with mild to moderate disabilities. An alternative explanation is that the information presented in the course helped prospective special education teachers realize that all students, including students with disabilities, benefit from the implementation of evidence-based instructional strategies. When these instructional strategies are available to all students within the general education classroom, the time needed for more intense, individualized instruction is reduced.
Construct 3. Beliefs about professional roles and responsibilities

Construct 3 focuses on respondents’ views about the benefits of team teaching and their willingness to participate in cooperative and/or consultative teaching models. In the present study, attitudes toward collaboration did not significantly change as a result of an introductory special education course. However, prospective general and special education teachers shared positive beliefs about professional roles and responsibilities at the beginning and the end of this course. The findings of my study are important because this is the first study to assess the impact of a single introductory special education course on the attitudes of prospective teachers toward collaboration. Consistent with the statement that new general education candidates should demonstrate a clear willingness to work with students with disabilities in the classroom as well as special educators who help to serve them (Ryan, 2010), prospective general and special education teachers reported favorable attitudes toward collaboration at the beginning and end of the course as evidenced by their agreement with each of the survey statements related to professional roles and responsibilities. More specifically, prospective teachers in the current study agreed that general and special education teachers share the responsibility for educating students with mild to moderate disabilities, they welcomed the opportunity to collaborate through consultative and/or team teaching models, and believed that all students benefit from team teaching. These findings are of particular importance because effective and meaningful collaboration is the glue that binds a successful inclusion program together (Worrell, 2008). Furthermore, there is a growing body of evidence that when teachers collaborate with their peers, they are more likely to teach effectively and
more likely to remain in the teaching profession (Berry, Daughtrey, & Wieder, 2009). The attitudes of the prospective teachers in the current study suggest a commitment to meaningful collaborative activities, a shared commitment to student growth and success by all stakeholders (Ryan, 2010).

These attitudes reflect a departure from more traditional models in which teachers work alone and roles and responsibilities are separated according to the population of students served (Rosenzweig, 2009). The positive attitudes toward collaboration expressed by participants in the current study are in contrast to concerns expressed by educators currently engaged in cooperative (co-teaching) models.

The premise of inclusion is that the supports students with mild to moderate disabilities need to learn academic and social skills can be effectively provided through the collaborative efforts of general and special education teachers within the general education setting (Swain, 2012). Co-teaching has emerged as the preferred model to provide specially designed instruction to students with disabilities in general education classrooms. The “keep-in” rather than “pull-out” model of service delivery exemplified in co-teaching is a radical departure from the past (Gerber & Popp, 1999). Theoretically, in the co-teaching model the expertise of the teachers is equal and complementary whereby the general educator shares expertise in all aspects of curriculum, effective teaching, and large-group instruction, and the special educator contributes knowledge in such areas as learning styles, differentiated instructional strategies, and behavior management (Beaudoin-Colwell, 2009). Teachers must be “highly qualified” to teach in various content areas (NCLB, 2001). As outlined in both the NCLB Act and the
Individuals with Disabilities Education Improvement Act of 2004, special educators must meet the same highly qualified standards as general educators. With this requirement, special education teachers bring additional knowledge and skills to the collaborative relationship.

In practice, the general education teacher maintains his or her classroom while the special educator is expected to become more and more flexible and his or her role within the inclusion classroom is often controversial, uncertain, and under-utilized (Ryan, 2010). Various co-teaching models are described in the literature, however, the predominant model is “one teach-one assist” in which the special education teacher is often relegated to the position of a glorified paraprofessional or an in-class tutor for one or two students (Keefe & Moore 2004; Ryan, 2010; Scruggs, et al., 2007; Solis, Vaughn, Swanson, & McCulley, 2012). After reviewing 32 qualitative co-teaching research reports, Scruggs, et al. (2007), concluded co-teaching as described in these investigations does not resemble the true intent of co-teaching in which one general education teacher and one special education teacher collaboratively deliver substantive instruction to a diverse, or blended, group of students, including students with disabilities in a general education classroom. Similar finding were confirmed by Ryan (2010) and Keefe & Moore (2004).

It is encouraging that the participants in the current study will enter their teaching careers with positive attitudes toward collaboration. Entering their teaching careers with these positive attitudes may ameliorate some of the challenges experienced by practicing teachers.
Overall Attitudes Toward Inclusion

The total score of the TATIS-P provides an overall measure of the respondent’s attitudes toward inclusion. In the present study the attitudes of prospective general and special education teachers toward inclusion significantly changed after completing an introductory special education course. There was no significant difference between general and special education teachers’ attitudes toward inclusion. This means that prospective general and special education teachers in the current study shared common beliefs and attitudes reflective of a positive mindset toward inclusion.

In contrast to the findings of the current study, the majority of studies conducted prior to the enactment of NCLB and IDEA 2004 reported that special education teachers demonstrated more positive attitudes toward inclusion than general education teachers. During this time period the majority of students with disabilities spent more than 80% of their school day in special education classrooms (U.S. Department of Education, 2002). General and special education teachers did not have an equal stake or responsibility in educating students with disabilities, nor were general education majors required to complete special education course work. The attitudes expressed by general education teachers during this time period were reflective of the prevailing dual and separate system in which the education of students with disabilities was primarily the responsibility of special educators.

The findings of the current study are important for several reasons. Since prospective teachers will be major contributors to the success or failure of inclusion for many years to come, it is critical for teacher education programs to cultivate positive attitudes toward
inclusion (Brown, et al., 2008; Cullen & Noto 2007; Shade & Stewart, 2001; Sharma, et al., 2008). This study demonstrated that exposure to an introductory special education course facilitated a growing awareness of the equal stake and responsibility all educators are expected to assume in educating students with disabilities and preparing them for further education, employment, and independent living.

Common beliefs are the foundation in forming and executing the new relationship between general and special educators required to successfully implement inclusive practices (Gerber & Popp, 1999; Ryan, 2010; Worrell, 2008). The similarity in attitudes toward inclusion expressed by prospective general and special education teachers in the current study suggests they are prepared to form and execute this new relationship.

The positive mindset toward inclusion expressed by prospective teachers in this study suggests they will readily adapt and change the ways they teach to meet a variety of student learning needs and develop a teacher–student relationship critical to producing high-level student learning and achievement (Jordan, et al., 2009; Sharma, et al., 2008; Standards for Ohio Educators, 2007). All students, including the ever increasing number of students with disabilities educated in general education classrooms are the beneficiaries of this shared positive mindset.

Limitations

In a presentation at the CEC, TED Conference, November 9, 2012, the authors of the TATIS-P reported a possible threat to the TATIS-P (Gregory & Noto, 2012). One item in the TATIS-P Construct 2: Beliefs about the efficacy of inclusion was reverse scored. The authors retained one reverse scored item to look for disingenuous responses (J.
The author discovered that the second construct of the TATIS was determined to be a result of reverse score bias rather than a measure of one of the three dimensions of attitude. This finding posed a threat to the content validity of the second TATIS-P construct. This information was not available to this researcher at the time of data collection or data analysis for this study.

The degree to which any measured change in attitudes occurred as a direct result of completing this single introductory course was limited by history and equalization of treatments. Previous experiences, experiences in other courses or life events that occurred during the course of the semester may have influenced the attitudes of the study participants about students with disabilities in inclusive settings. Although each section of this course conformed to a set of course objectives established by Kent State University, the different teaching methods, assignments and assessments selected by individual instructors could have influenced the findings of this study. This researcher served as the instructor for two of the course sections. This increased the possibility that students enrolled in two of the eight sections were exposed to an increased emphasis and sensitivity to the role attitudes play in inclusive settings as a result of instructor/researcher bias. Students enrolled in these two sections were only 10% of the total sample population which served as a control for this threat to internal validity.

Additionally, this researcher maintained an intentional focus on the course objectives and content of the textbook to minimize the influence of this researcher’s bias.

The extent to which the results can be generalized to all prospective undergraduate teachers was limited by pretest sensitization, convenience sampling, use of existing intact
groups, and the narrow focus of the course content. Introduction to the study and completion of the survey at the beginning of the semester clued the students into the focus of the study and may have heightened their sensitivity to the topic of attitudes throughout the semester. Since this course is also offered during the spring and summer, it is possible other cohorts, such as prospective speech/language therapists or early childhood educators were scheduled to take this course during a different semester, potentially decreasing the representativeness of the study sample. The number of teachers entering the teaching profession with no prior teaching experience was used to estimate the target population. According to the U.S. Department of Education Institute Education Sciences, National Center for Education Statistics, 72,800 teachers entered the teaching profession with no prior teaching experience in the school year 2008-09. Based on this estimated target population, with a confidence level of 95% and an error band of +/- 5%, it was calculated that a sample size of 382 participants was needed to achieve adequate statistical power (http://panel.zoomerang.com/ZoomerangSupportCenterSampleSizeCalculator.html?gclid=CMqh_LWfxKYCFQI_5QodSFIBIQ). The maximum registration for the eight sections included in the study was 408. Among the six instructors who agreed to participate, a total of 319 surveys were completed. Due to late registration, withdrawals, student choice to decline participation, non-education major status and the last four digits of social security numbers, 207 education majors comprised the sample population for paired-sample statistical analysis. The discrepancy between the sample size need to achieve adequate statistical power and the actual number of surveys used for statistical
analysis, limited the extent to which the results could be generalized to the population of prospective teachers.

The focus of this study was the effect of a single introductory special education course, therefore, the results of this study could not be generalized to prospective teachers enrolled in teacher preparation programs that infuse information about students with disabilities into existing course work and do not require a separate introductory special education course. Nor did the proposed study investigate the influence of variables such as instructor, type of instructional method, type of assignments or textbook.

There are other variables that influence teacher attitudes that are beyond the scope of teacher preparation such as school culture and climate, the number of students with disabilities enrolled in a given general education classroom and the supports (materials and personnel) that are available to the general education teacher. Therefore, the results of this study were limited to prospective teachers enrolled in teacher preparation programs that require a single introductory special education course and cannot be generalized to practicing teachers.

An additional limitation to this study is the lack of an established level of attitudes needed for successful inclusion of students with disabilities into general education classrooms. The research is clear that positive, sometimes referred to as favorable attitudes are associated with student success, but what constitutes positive or favorable has not been statistically defined.
Conclusions

Educational policies and reform initiatives cannot guarantee the successful inclusion of students with disabilities in general education classrooms (Coulter, 2007; Peters, Johnstone and Ferguson, 2005), nor can the attitudes of teachers be legislated (Colber, 2010). Teachers constantly communicate important attitudinal messages to students that set the tone for interactions between teachers and students with disabilities (Kim, 2011). As such, teachers’ attitudes represent a critical variable in the successful inclusion of students with disabilities in general education classrooms. Teacher preparation programs are in a position to help cultivate positive attitudes toward inclusion (Renzaglia, et al., 1997). Although prospective special education teachers are exposed to a variety of courses and experiences in their course of study, the predominate method of preparing prospective general education teachers is a single introductory special education course. The current study investigated the impact of an introductory special education course on the attitudes of prospective teachers toward inclusion.

The results of the current study provide support that an introductory special education course improved the attitudes of prospective teachers about the inclusion of students with mild to moderate disabilities in general education classrooms. Improved attitudes increase the meaningful participation of these students in general education classrooms. In turn, greater participation in general education classrooms correlate with higher levels of engagement, achievement, and social adjustment of students with disabilities at school.

While prospective general and special education teachers’ attitudes toward inclusion improved and the post-test comparison revealed no significance differences between
general and special education majors, an introductory special education course impacted prospective general and special education teachers differently. The national movement to include all children in general education classrooms has met with much support; however, according to Colber (2010) there are many challenges professionals encounter when implementing inclusionary programs and these issues continue to plague our educators. Special education is not a nice, orderly system of structures, categories and services. The complexity of educating students with disabilities is an increasingly complicated arena in which legal, psychological, scientific, social, cultural and social discourses compete (Conner & Ferri, 2007). The results of the current study while supporting the positive influence of a single introductory course on the attitudes of prospective general and special education teachers toward inclusion, mirror the complexity and challenges voiced by Colber (2010) and Conner & Ferri (2007).

Although this study provided support that an introductory special education course positively affects the attitudes of prospective educators, variations in the results suggest that teacher preparation programs could potentially enhance the impact on the attitudes of prospective teachers though course modifications and/or additional research.

Future Research

Much of the research and legislation pertaining to inclusion has focused on the placement of students in the appropriate educational setting, but very little thought has been given to the placement of general and special education teachers in a new and challenging shared environment (Voltz, 2001). The paradigm shift required by inclusion has a powerful impact on both general and special education teachers. While general
education teachers are coming to terms with the idea of shared ownership of what was formerly their own classroom, special education teachers are dealing with feelings of displacement and confusion over exactly what role they play in this new classroom environment (Kelley, 2010). Understandably, research over the past decade has focused primarily on the attitudes of general education teachers. In addition to the current study, only one other study compared the impact of an introductory special education course on the attitudes of prospective general and special education teachers (Shippen, et al., 2005). Additionally, the current study is the only study that specifically measured beliefs of prospective teachers about professional roles and responsibilities. In light of the controversial, uncertain, and under-utilized role of the special education teacher within the general education classroom, additional research is needed to explore and examine the impact of teacher preparation on their attitudes toward the collaborative arrangements that characterize successful inclusion.

As a group, the attitudes of prospective general education teachers toward inclusion changed after completing an introductory special education course. However, attitudes toward inclusion were not consistent among the various groups that comprise prospective general education teachers. In the current study, visual inspection of mean scores revealed positive changes among prospective early childhood and middle childhood teachers, but not with prospective adolescent (i.e., secondary) or multi-age teachers. High school teachers are often less positive than elementary teachers and in some cases, more resistant to the additional responsibilities of inclusion (Avramidis & Norwich, 2002; Bender, Vail and Scott, 1995; Guterman, 1995; Rogers, 1987; Savage & Wienke,
1989). Additionally, secondary educators are often apprehensive or uncertain about how to provide modifications and accommodations for students with disabilities and some educators suggested that it is not realistic to make the instructional accommodations needed for students with disabilities beyond the elementary level (Beaudoin-Colwell, 2009; Lambert, et al., 2005). As such, increased attention and research to inclusion at the high school level is warranted. This is of particular importance since secondary teachers play a pivotal role in preparing students with disabilities for further education, employment, and independent living and an introductory special education course may be their only pre-service exposure to and preparation for inclusion.

As teacher education programs review the method they employ to prepare prospective teachers for inclusion, the current study suggests that the method of preparation is worthy of further study and investigation. It was not the purpose of this study to examine differences among sections of this course however, a review of the descriptive statistics prompted this researcher to explore these differences. The analysis of six groups (i.e., sections taught by the same instructor were combined), grouped by section, revealed no statistically significant difference among sections at the beginning of the course however, a statistically significant posttest difference existed among the six groups. Students enrolled in three sections, taught by two different instructors, demonstrated statistically significant changes in attitudes toward inclusion. There was no statistically significant change in the other four sections however, the overall TATIS-P mean score and the mean scores in each of the three TATIS-P constructs decreased from pre to post in one of the six sections. Enrollment in all but one section was limited to 50 or fewer students. The
section which had a maximum enrollment of 175 was the section in which mean scores decreased. Since the pre-post differences were not statistically significant, definitive conclusions are unwarranted however, examining the relationship between the size of the class and impact on attitudinal change is worthy of consideration and further research.
APPENDICES
APPENDIX A

A HISTORY OF SPECIAL EDUCATION
## Appendix A

A History of Special Education

<table>
<thead>
<tr>
<th>The Early Years</th>
<th>Building Support for Inclusion</th>
<th>The Adolescence of Inclusive Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legislative &amp; historical events</td>
<td>P.L. 94-142 Education of Regular Education Initiative 1986</td>
<td>IDEA 1997 No Child Left Behind 2001 IDEA 2004</td>
</tr>
<tr>
<td>Who is served</td>
<td>Students with disabilities ages 6 to 22</td>
<td>1987 Addition of children birth to 3 (early intervention) &amp; children ages 3-5 (early childhood).</td>
</tr>
<tr>
<td>Labels-Use of categorical labels to determine eligibility.</td>
<td>TMR-trainable mentally retarded EMR-Educable Mentally Retarded Handicapped</td>
<td>TMR and EMR became Developmentally Handicapped. Autism and Traumatic Brain Injury added to the list of categories</td>
</tr>
<tr>
<td>Placement/LRE</td>
<td>Separate schools and/or classrooms (resource or self-contained) often segregated from typically developing peers</td>
<td>An increasing number of SWD being mainstreamed into general education classrooms for part of the day. Mainstreaming was essentially viewed as a privilege.</td>
</tr>
<tr>
<td>Special Education</td>
<td>Typically defined by the place where educational services were provided. (i.e. “the LD room”)</td>
<td>The legal mandate for progress and participation in the general curriculum transformed the privilege of mainstreaming into the right of inclusion.</td>
</tr>
</tbody>
</table>

Special education is specially designed instruction and is defined by services not the location in which the services are delivered.
<table>
<thead>
<tr>
<th>Role of the special educator</th>
<th>Role of the general education teacher</th>
<th>Curriculum</th>
<th>Teacher training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Almost exclusive responsibility for the education of students with IEPs.</td>
<td>Little or no responsibility for the education of students with IEPs.</td>
<td>Separate curriculum for general and special education students.</td>
<td>Separate general and special education teacher training programs. General education focused on content, whereas special education preparation followed categorical labels.</td>
</tr>
<tr>
<td>Increased communication with general education teaching around the mainstreaming of selected students.</td>
<td>Increased communication with special education teachers regarding their willingness to include mainstreamed students.</td>
<td>Some students with IEPs participated in the general curriculum, being excused from any state or district “high stakes” testing was allowable.</td>
<td>General and special education teacher preparation continued to be separate, but an increasing number of teacher preparation programs included training about students with disabilities into the preparation of general education teachers.</td>
</tr>
<tr>
<td>Increased collaboration with general education through co-teaching, consultation, and working with paraprofessionals.</td>
<td>Increased collaboration with special educators and related service personnel.</td>
<td>A single standards-based curriculum for ALL learners. All students must participate in state and district wide standards based testing.</td>
<td>Training generally continues to be separate, however, knowledge about student with disabilities must be included in general education teacher preparation. Prospective special educators prepare for Early Childhood, Mild/Moderate or Moderate/Intensive Intervention Specialists.</td>
</tr>
<tr>
<td>Compliance with the “highly qualified” mandates.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX B

TEACHER ATTITUDES TOWARED INCLUSION SCALE (TATIS-P)
Appendix B

Teacher Attitudes Toward Inclusion Scale (TATIS-P)

Directions: The purpose of this confidential survey is to obtain an accurate and valid appraisal of your perceptions of the inclusion of students with mild to moderate disabilities in regular classrooms. It also contains questions pertaining to your beliefs about professional roles, attitudes toward collegiality, and perceptions of the efficacy of inclusion (i.e., whether or not you believe that inclusion can succeed). Because there are no "right" or "wrong" answers to these items, please respond candidly.

Definition of Full Inclusion: For the purposes of this survey, full inclusion is defined as the integration of students with mild to moderate disabilities into regular classrooms for 80% or more of the school day. Under federal special education law, mild to moderate disabilities include Learning Disabilities; Hearing Impairments; Visual Impairments; Physical Handicaps; Attention Deficit Disorders; Speech/Language Impairments; and mild/moderate Emotional Disturbance, Mental Retardation, Autism, or Traumatic Brain Injury.

Last Four Digits of your Social Security Number:________________

Year in school  ☐Freshman  ☐Sophomore  ☐Junior  ☐Senior  ☐Other

Major: Please check the one that applies to you.

1. General Education
   ☐Early Childhood  ☐Middle Childhood  ☐Adolescence (High School)
   ☐Art Education  ☐Music Education  ☐Physical Education

2. Special Education
   ☐Early Childhood Intervention Specialist  ☐Intervention Specialist Mild/Moderate
   ☐Intervention Specialist Moderate/Intensive  ☐Speech/Language Pathologist

3. Other:
   ☐Human Development & Family Studies  ☐Nursing

Experience with individual(s) with disabilities:
☐none
☐acquaintance (neighbor, store clerk),
☐casual (e.g., fellow student, co-worker, employee)
☐close (e.g., roommate, near relative),
☐intimate (e.g., spouse, child, sibling
Section 2: Teacher Attitudes Toward Inclusion Scale (TATIS-P).

Circle the number that best describes your response to each question.

<table>
<thead>
<tr>
<th></th>
<th>Disagree</th>
<th>Very Strongly Disagree</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree or Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Very Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. All students with mild to moderate disabilities should be educated in regular classrooms with non-handicapped peers to the fullest extent possible.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>2. It is seldom necessary to remove students with mild to moderate disabilities from regular classrooms in order to meet their educational needs.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>3. Most or all separate classrooms that exclusively serve students with mild to moderate disabilities should be eliminated.</td>
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<tr>
<td>4. Most or all regular classrooms can be modified to meet the needs of students with mild to moderate disabilities.</td>
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<tr>
<td>5. Students with mild to moderate disabilities can be more effectively educated in regular classrooms as opposed to special education classrooms.</td>
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<tr>
<td>6. Inclusion is a more efficient model for educating students with mild to moderate disabilities because it reduces transition time (i.e., the time required to move from one setting to another).</td>
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<tr>
<td>7. Students with mild to moderate disabilities should be taught in regular classes with non-disabled students because they will not require too much of the teacher’s time.</td>
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<tr>
<td>8. I believe including students with mild/moderate disabilities in regular classrooms is effective because they can learn the academic skills necessary for success.</td>
<td>1</td>
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<tr>
<td>9. I believe including students with mild/moderate disabilities in regular classrooms is effective because they can learn the social skills necessary for success.</td>
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<td>10. I find that general education teachers often do not succeed with students with mild to moderate disabilities, even when they try their best.</td>
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<tr>
<td>11. I would welcome the opportunity to team teach as a model for meeting the needs of students with mild/moderate disabilities in regular classrooms.</td>
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<td>12. All students benefit from team teaching; that is, the pairing of a general &amp; a special education teacher in the same classroom.</td>
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<tr>
<td>13. The responsibility for educating students with mild/moderate disabilities in regular classrooms should be shared between general and special education teachers.</td>
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<tr>
<td>14. I would welcome the opportunity to participate in a consultant teacher model (i.e., regular collaborative meetings between special and general education teachers to share ideas, methods, and materials) as a means of addressing the needs of students with mild/moderate disabilities in regular classrooms.</td>
<td>1</td>
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</tr>
</tbody>
</table>
APPENDIX C

PERMISSION TO USE TATIS
Permission to use TATIS
4 messages

Deirdre Dransfield< ddransfi@kent.edu> Sat, Oct 23, 2010 at 3:48 PM
To: jgregory@bridgeport.edu

Dr. Gregory,

My name is DeeDee Dransfield. I am a doctoral student and adjunct faculty for Kent State University. Yesterday when I was doing research for my dissertation proposal I was very excited to locate "The Teacher Attitudes Toward Inclusion Scale: Technical Report. Currently my dissertation proposal is "The Effect of an Introductory Special Education Course on the Attitudes and Beliefs of Prospective General Education Teachers".

I would like to use the TATIS to assess the attitudes of prospective general education teachers before and after taking Introduction to Exceptionalities. Please let me know the steps I need to take to secure permission to use this instrument.

Thank you for your attention to my request.

DeeDee Dransfield
Gregory, Jess L.< gregoryj2@southernct.edu>  
To: Deirdre Dransfield <ddransfi@kent.edu>  

Sun, Oct 24, 2010 at 10:56 AM

I can grant you permission, you have it!

What I would like is a copy of your data when you are done....

Now you have a choice.... We are currently revising the instrument to have better reliability in factor two, would you like the new version of the instrument (it should be ready in about 2 weeks)? I would be happy to give you new alphas in exchange for data on the new version of the instrument.

-Jess

Jess Gregory, Ed.D.
Assistant Professor
Educational Leadership and Policy Studies
Southern Connecticut State University
TE-6, Room 123

gregoryj2@southernct.edu
203 392 5324

Deirdre Dransfield< ddransfi@kent.edu>  
To: “Gregory, Jess L.” <gregoryj2@southernct.edu>  

Sun, Oct 24, 2010 at 6:47 PM

Thank you for your quick reply.

I am very interested in the new version. I would be more than happy to share the data with you. Although I would like to start collecting data in January, I doubt I will be ready. I would have to have my proposal approved by my committee and the IRB approved within the month. Since I am teaching at Kent AND I serve as a consultant for several school districts, collecting data next fall is probably more realistic. I plan to pilot the instrument with the 2 sections (about 45-50 students) of the Intro class I teach spring semester (Jan-May). Next fall when I use it for my dissertation, there will be at least six sections of the same course with about 350 students.
Sorry for rambling. Of course I will share the data with you.

I look forward to the revised instrument and thank you for all the work you have done and your willingness to share it.

DeeDee

Gregory, Jess L.< gregoryj2@southernct.edu>  
Mon, Oct 25, 2010 at 9:17 AM  
To: Deirdre Dransfield <ddransfi@kent.edu>  

Great!

As soon as Lori and I finish tweaking it, I will send it to you!

Jess Gregory, Ed.D.  
Assistant Professor  
Educational Leadership and Policy Studies  
Southern Connecticut State University  
TE-6, Room 123  

gregoryj2@southernct.edu <http://gregoryj2@southernct.edu>  
203 392 5324
APPENDIX D

SPED 23000 INTRODUCTION TO EXCEPTIONALITIES
Appendix D

SPED 23000 Introduction to Exceptionalities

COURSE DESCRIPTION
This course introduces participants to student exceptionalities, service delivery/placement options, and the multidisciplinary team process. Its main focus is on identification of characteristics (as well as similarities/differences of those without exceptionalities), and definition and identification procedures of students with exceptionalities. Topics include the history of special education, legislation, effects of exceptionality, and current issues. General principles and practices of inclusive education as well as implications for teaching and learning in differentiated classrooms are also addressed.

GOALS AND OBJECTIVES
The goal of this class is to introduce students to the developmental learning and behavioral characteristics of persons with exceptionalities, as well as to educational and community services that are provided for them. Class meetings will focus on specific disabilities (e.g., intellectual and developmental disabilities, learning disabilities, physical disabilities, emotional and behavioral disorders, communication disorders, deafness, blindness) or on giftedness in relation to their definitions, prevalence, characteristics, and service options. The history of the field, the impact of disability on families and society, and current issues in exceptionalities will also be discussed. Specific attention will be devoted to the following objectives (please note that the following are not fully specified instructional objectives):

1. Students will be able to present current and historical foundations, theories, and philosophies of special education as well as overviews of current issues.

2. Students will demonstrate an understanding of definitions, identification procedures, causes and prevalence of specific exceptionalities.

3. Students will demonstrate an understanding of continuum of placement options and service delivery models for students with exceptionalities especially in relation to general education.

4. Students will demonstrate an understanding of legal issues as well as mandates and legislations regarding the education of students with exceptionalities.

5. Students will be able to present the effects exceptional conditions may have on an individual’s life, including interpersonal relationships, social/emotional aspects, psychological factors, intellectual functioning and language development.

6. Students will demonstrate an understanding and knowledge of etiological factors and differential characteristics of students with exceptionalities and the educational implication of these characteristics.

7. Students will demonstrate an understanding and knowledge of similarities and differences in cognitive, physical, cultural, social, emotional needs among students with and without exceptionalities and the implications of those for education and living.

8. Students will articulate various strategies for differentiating curriculum, instruction, assessment and classroom learning environments.
APPENDIX E

IRB APPROVAL
IRB approval for Protocol application #11-301 - please retain this email for your records
1 message

KIEHL, LAURIE< lkiehl@kent.edu>                      Wed, Jul 20, 2011 at 1:50 PM

To: "ddransfi@kent.edu" <ddransfi@kent.edu>
Cc: “BARTON, LYLE” <lbarton@kent.edu>

RE: Protocol #11-301 entitled “The Effect of a single Introductory Special Education Course on the Attitudes of Prospective Teachers Toward Inclusion”

Hello,

I am pleased to inform you that the Kent State University Institutional Review Board has reviewed and approved your Application for Approval to Use Human Research Participants as Level I/Exempt research. This application was approved on July 20, 2011. Your research project involves minimal risk to human subjects and meets the criteria for the following category of exemption under federal regulations:

- Exemption 1: Research conducted in established or commonly accepted educational settings, involving normal educational practices.
- Exemption 2: Research involving the use of educational tests, surveys, interviews, or observation of public behavior.

***Submission of annual review reports is not required for Level 1/Exempt projects.

If any modifications are made in research design, methodology, or procedures that increase the risks to subjects or includes activities that do not fall within the approved exemption category, those modifications must be submitted to and approved by the IRB before implementation. Please contact the IRB administrator to discuss the changes and whether a new application must be submitted. It is important for you to also keep an unstamped text copy (i.e., Microsoft Word version) of your consent form for subsequent submissions.
Kent State University has a Federal Wide Assurance on file with the Office for Human Research Protections (OHRP); FWA Number 00001853.

If you have any questions or concerns, please contact me by phone at 330-672-2704 or by email at Pwashko@kent.edu.

Respectfully,

Kent State University Office of Research Compliance

137 Cartwright Hall | fax 330.672.2658

Kevin McCreary | Research Compliance Coordinator | 330.672.8058 | kmccrea1@kent.edu

Laurie Kiehl | Research Compliance Assistant | 330.672.0837 | lkiehl@kent.edu

Paulette Washko | Manager, Research Compliance | 330.672.2704 | Pwashko@kent.edu

For links to obtain general information, access forms, and complete required training, visit our website at www.kent.edu/research.

11-301 - Consent Forms 7.20.11.pdf

1556K
APPENDIX F

PARTICIPANT CONSENT FORM
Appendix F

Teachers’ Attitudes Toward Inclusion

I want to study the attitudes toward inclusion of prospective teachers enrolled in Introduction to Exceptionalities. I want to do this research to improve my skills as a college instructor and, hopefully, add to the body of knowledge concerning the preparation of teachers for working with students with disabilities. I would like you take part in this project. Participation in this project will involve providing some demographic information and responding to a 14 question survey on the first and last day of class this semester.

Confidentiality will be maintained. All information used in this study will not contain any information that will personally identify you. The survey asks you to provide the last 4 digits of your social security number. These numbers will ONLY be used to match pre and post survey results. Once pre and post surveys have been matched, these 4 digits will be deleted from all surveys. I do not have access to your social security numbers, therefore these 4 digits cannot be used in any way to obtain or reveal your identity. The research report will not contain any student’s name or other information that could identify you.

If you take part in this project you will be adding to the body of knowledge that informs effectively preparing teachers to educate students with disabilities. Taking part in this project is entirely up to you, and no one will hold it against you if you decide not to do it. If you do take part, you may stop at any time.

The results of the study will be used for scholarly purposes only. The results from the study will be presented in educational settings and at professional conferences, and the results might be published in a professional journal in the field of education.

If you want to know more about this research project, please call me at 330-244-3315 extension 53310. Dr. Barton is my advisor for this project. He can be reached at 330-672-2294. The project has been approved by Kent State University. If you have questions about Kent State University's rules for research, please call Dr. John West, Vice President of Research, Division of Research and Graduate Studies (Tel. 330.672.2704).

You will receive a copy of this consent form.

Sincerely,

Deirdre S. Dransfield, Instructor Kent State Stark

I agree to take part in this project. I know what I will have to do and that I can stop at any time.

_______________________________________________________________________________

Signature

Date

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APPENDIX G

SCRIPT FOR SCREENCAST
Appendix G

Script for screencast

Hello. My name is Deirdre Dransfield. I am a doctoral student at Kent State in special education and I teach 2 sections of Introduction to Exceptionalities at Kent State Stark Regional Campus.

An increasing number of students with disabilities are spending all or the majority of their school day in general education classrooms which is referred to as inclusion. The inclusion of students with disabilities in general education classrooms changes the roles and responsibilities of both general and special education teachers. To prepare future educators for inclusion, the Ohio Department of Education requires all students seeking a teaching license to successfully complete Introduction to Exceptionalities.

I want to study the attitudes of prospective teachers toward the inclusion of students with mild/moderate disabilities in general education classrooms. For the purposes of this study, inclusion is defined as the integration of students with mild to moderate disabilities into general education classrooms for 80% or more of the school day. There is no definitive or agree upon definition of what constitutes a mild disability or a moderate disability. For the purposes of this study, students with mild to moderate disabilities are defined as students who are capable of progress and participation in the general curriculum with accommodations, differentiated instruction and minimal support from special education teachers.

I want to do this research to improve my skills as a college instructor and, hopefully, add to the body of knowledge concerning the preparation of teachers for working with students with disabilities. I would like you take part in this project. Your participation in this study will contribute to knowledge about the preparation of general and special educators for inclusion.

Participation in this project will involve providing some demographic information and responding to a 14 question survey on the first and last day of class this semester. Completion of the survey will take about 5-10 minutes.

Your participation is voluntary and all responses are confidential. If you feel uncomfortable with a question, you can skip that question or withdraw from the study altogether. If you decide to quit at any time before you have finished the survey, your answers will NOT be recorded.
The results of the study will be used for scholarly purposes only. The results from the study will be presented in educational settings and at professional conferences, and the results might be published in a professional journal in the field of education.

Thank you for your time and consideration. If you have any questions or concerns, I can be contacted via email at: ddransfi@kent.edu.
REFERENCES
References


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Market Research Support Center: Sample Size Calculator.

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