ZAMBIAN STUDENT TEACHERS' ATTITUDES TOWARD INCLUDING STUDENTS WITH DISABILITIES IN GENERAL EDUCATION CLASSROOMS

BY

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DISSERTATION

Submitted in partial fulfillment of the requirements
for the degree of Doctor of Philosophy in Special Education
in the Graduate College of the
University of Illinois at Urbana-Champaign, 2012

Urbana, Illinois

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Abstract

Inclusive education has become a global trend in the provision of services for students with disabilities. In Zambia and other developing nations, international initiatives from UNESCO and other nongovernmental organizations have contributed to the consensus that all children have a right to a free and appropriate education and that all students with disabilities should be educated in inclusive settings. Thus, the Zambian government has issued policy statements to guide the implementation of inclusive education. This study surveyed University of Zambia students, examining their attitudes toward inclusion and their perceptions about supports and resource needs for successful implementation of inclusion. Questionnaires were distributed to 497 students at the University of Zambia. Four hundred eighty-four questionnaires were included in the analysis, resulting in a response rate of 97%. Results of the study indicated that, overall, University of Zambia students hold positive attitudes toward inclusion. Several variables were found to be related to students' attitudes toward inclusion. However, students believed that the implementation of inclusion was hindered by the lack of adequate resources and supports from the government.

Acknowledgments

I would like to express my sincere gratitude to my advisor and dissertation chair, Dr. Michaelene Ostrosky for her tireless guidance, support, and understanding throughout my educational journey. A special thank you to Dr. Janet Gaffney for her support and guidance. I want to thank members of my dissertation committee, Drs. Jennifer Greene and Lisa Monda-Amaya, for their insightful suggestions and support. I will forever be indebted to you all for your unwavering support throughout the course of my study. Special thanks to Nora Gannon-Slater for helping with the statistical analysis for the study. Dr. Beatrice Matafwali and Mr. Kalima Kalima, I thank you for assisting with the ground work in Zambia. I want to thank all my colleagues and friends for all your help and support. I drew strength and hope from your words of encouragement.

I extend my deepest gratitude to my husband Mate, my sons Mulio and Johnny for their love, encouragement, support, and understanding. To my sisters, brother, nieces, and nephew: you are my inspiration. Your unconditional love has seen me through the toughest times. Mom, as promised, I have reached the "end". Dad, I wish you were here to witness the "finale". I know you are proudly looking down upon me.

TABLE OF CONTENTS

Chapter 1

Introduction

Zambian Student Teachers' Attitudes Toward Including Students with Disabilities in General Education Classrooms

The inclusion of students with disabilities into general education settings has become a global trend. As a result, the number of students with disabilities receiving special education services in general education classrooms has steadily increased (McLeskey & Henry, 1999; Weiss & Lloyd, 2002) and consequently, general and special education teachers face the challenges associated with providing services and teaching students with disabilities within general education settings. In the United States, the term *inclusion* has generated significant debate over the past few decades (Praisner, 2003). While some educators define inclusion in terms of educational placement for students with disabilities, others view inclusion as a service delivery model for students with disabilities. Ryndak, Jackson, and Billingsley (1999-2000) note that the definition of inclusion goes beyond placing students in general education classrooms or providing special education services. The value behind inclusion is that students with disabilities have the right to meaningful participation in general education settings together with their typically developing peers (Bateman & Bateman, 2001; DeBattencourt, 1999; Vaughn, Bos, & Schumm, 2000).

Although there is no universal definition of inclusion, three common themes have emerged from the literature (Flem, Moen, & Gudmundsdottir, 2004; Florian, 1998; Ryndak, Jackson, & Billingsley, 1999-2000; Snyder, Garriot, & Aylor, 2001): (a) looking beyond disability and maximizing each student's potential, (b) providing students with disabilities appropriate and effective educational services in the same settings as their peers without

disabilities, and (c) providing students with disabilities and their teachers access to support services and supplemental aids needed to be successful in inclusive classrooms. According to Skrtic, Sailor, and Gee (1996) inclusive education means that "special education is no longer defined as a placement but as a system of supports provided to help address the needs of students with disabilities" (p. 150). Others, (e.g., Ainscow, Booth, & Dyson, 2004) have broadened the definition of inclusive education to include focusing on the needs of disadvantaged children, including students who are culturally, ethnically, and linguistically diverse. At the core of the philosophy of inclusion is the belief that "everyone belongs, diversity is valued, and we can all learn from each other" (Renzaglia, Karvonen, Drasgow, & Saxton, 2003, p. 140).

Despite the fact that the law does not mandate inclusion, the Individuals with Disabilities Education Act (IDEA, 2004) requires that children with disabilities, to the maximum extent appropriate, are provided a free and appropriate education (FAPE) in the least restrictive environment (LRE) and have access to the general education curriculum [IDEA Section 612 (a)(5)(A)]. Controversy surrounds the concept of LRE in terms of "the extent to which children with special needs can and should be included in general education classrooms" (Nyewe & Green, 1999, p. 14). Those who support full inclusion believe that all students, regardless of disability, should be educated in general education settings (CEC, 2010). Contrary to this belief, others have questioned the effectiveness of inclusion, the benefits for students, as well as staff attitudes and willingness to adjust their schedules, instructional plans, curriculum, and expectations to meet the needs of students with disabilities (Caroll, Forlin, & Jobling, 2003; Forlin, 1998, 2001; Loreman, Sharma, Forlin, & Earle, 2005; Sharma, Ee, & Desai, 2003; Subban & Sharma, 2006).

The success of inclusion depends on a variety of factors, including teachers' attitudes and the quality of instruction they offer their students (Leyser & Tappendorf, 2001). Teacher attitudes are crucial factors that impact how inclusive practices are implemented (Bender, Vail, & Scott, 1995; Hsieh, Hsieh, Ostrosky, & McCollum, in press; Smith & Smith, 2000). Campbell, Gilmore, and Cuskelly (2003) reported that teachers with more positive views about inclusion are more confident in their abilities and commitment to accommodate students with disabilities in inclusive settings as evidenced by their willingness to adapt classroom materials and related procedures. On the other hand, teachers with negative attitudes were reported to have low expectations for students with disabilities (Wilczenski, 1993). In other words, negative attitudes about children, learning, and schooling are likely to impact teachers' support for students within inclusive settings (Brantlinger, 1996).

Researchers have frequently posited that teachers' attitudes are likely to be influenced by their belief that what they do will be effective (Martinez, 2003). Positive and negative attitudes toward students with disabilities and inclusive education can be formed during initial preparation in teacher education programs (Parasuram, 2006). Shaping positive attitudes toward students with disabilities, therefore, becomes an important aspect in the education of student teachers. Likewise, negative attitudes toward students with disabilities have been documented by several researchers who hypothesize that such attitudes often stem from a lack of knowledge about disabilities (Houck, 1992; Lobosco & Newman, 1992; Siegel, 1992). Limited understanding may increase anxiety and fear of individual differences (Sze, 2009).

To ensure the success of inclusive practices, student teachers should be provided with opportunities to work with students with a variety of disabilities (Smith, Polloway, Patton, & Dowdy, 2006). Rizzo and Vispoel (1992) noted that attitudes of student teachers toward

inclusion improved as a result of completing coursework designed to prepare candidates to teach students with disabilities. Indeed, the importance of teacher education programs focusing on developing positive attitudes for their teacher candidates has been noted (Forlin, 2006). Initial attitudes of pre-service teachers are critical to the success of inclusion (Wilczenski, 1992), with pre-service teacher education being viewed as the principle vehicle to ensuring that teachers acquire the appropriate attitudes and skills for successful inclusion (Sharma, Forlin, Loreman, & Earle, 2006).

Teachers' views of the quality of their pre-service preparation may influence their beliefs about their ability to instruct and manage students with learning and behavioral problems in their classrooms (Brownell & Pajares, 1999). Yet, a considerable number of newly graduated teachers report being dissatisfied with their pre-service education, noting that they do not possess essential training competencies for solving challenges they are confronted with in their classroom settings (Cambourne, 2002). Given the assumption that pre-service teachers' attitudes influence their perceptions about teaching and learning in general, researchers have investigated the nature of teacher attitudes, whether they can be changed, and their effects on educational practices (Wideen, Mayer-Smith, & Moon, 1998). Results of research examining teacher education and pre-service teachers' attitudes toward inclusion have been mixed (see Brownlee & Carrington, 2000; Martinez, 2003; Shade & Stewart, 2001; Tait & Purdie, 2000). Consequently, Wideen and colleagues suggested that research examining teacher attitudes and the impact of teacher education programs on teacher attitudes should remain an open question rather than an accepted assumption.

International Perspectives on Inclusive Education

Internationally, terms such as *mainstreaming*, *integration*, and, *inclusion* have been used interchangeably to describe the educational movement of teaching students with and without disabilities in the same settings. In most countries other than the US, a major factor influencing the movement toward inclusion was the adoption of the Salamanca Statement and Framework for Action on Special Needs Education (Salamanca Statement) at the World Conference on Special Needs Education, held in Salamanca, Spain in June, 1994. Representatives from 92 governments and 25 international organizations reaffirmed the right of all children with special needs to an education within the general education system (Chitiyo, 2006; UNESCO, 1994). The conference participants adopted a framework for action, which recommended steps to accommodate all children with disabilities in public schools regardless of their individual differences and needs. The Salamanca Statement helped define the future direction of special education in light of these international efforts to ensure the rights of all children to a basic education. Specifically, the statement endorsed inclusive education and stated that inclusion and the participation of students with disabilities in inclusive settings is essential for safeguarding human rights (UNESCO).

Zambia is one of the 92 countries that signed the Salamanca Statement. Consequently, the Zambian Government and the Ministry of Education's stance on inclusion has been influenced by the Salamanca Statement and Framework (1994). The Zambian government has adopted a policy that endorses the inclusion of students with disabilities into general education environments (*Educating Our Future*, 1996). The policy advocates the elimination of discrimination based on disability. Furthermore, the policy stipulates equal opportunities, nondiscrimination, social justice, protection of basic human rights, and participation of students

with disabilities in the mainstream activities of school and society. Given the Zambian Government's and Ministry of Education's movement toward inclusive education over the past 15 years, general and special educators may be facing challenges in providing services in general education settings that were historically provided in special classrooms.

At the regional level, Zambia is a member of the Southern Africa Development Committee (SADC). SADC endeavors to achieve economic well-being, improvement in standards of living and quality of life, freedom and social justice, and peace and security for the people of Southern Africa. This shared vision for the Southern African region is anchored on the common values, principles, and the historical and cultural affinities that exist among the people of Southern Africa (SADC, 2010). Other members of SADC include: Botswana, Lesotho, Malawi, Namibia, South Africa, Swaziland, and Zimbabwe. Like Zambia, these southern African countries have adopted the Salamanca Statement and Framework. However, despite this positive movement, special education, and inclusive education in particular, are still in the beginning stages in the region. While Zambia has had articulated policies on special education since 1977, most of the other SADC countries did not have written policies until the 1980s (e.g., Botswana, 1984; Zimbabwe, 1980) and 1990s (e.g., South Africa). Despite instituting special education policies, these SADC countries did not have policies on inclusion until after the adoption of the Salamanca Statement and Framework. Because SADC countries are similar in their political, social, and cultural aspects (Kabzems & Chimedza, 2002) and considering that Zambia's policy on special education has the longest history, conducting a study on Zambian students' attitudes toward inclusion offers insight to other countries in the region in how to best prepare future teachers for inclusive education. Given the fact that teachers' attitudes can significantly impact the success of inclusive education, examination of education students' attitudes is important.

Provision of Special Education in Zambia

Key Policies

In Zambia, students with disabilities have been provided special education services for approximately 100 years. The first efforts to educate students with disabilities were made by missionaries in 1903. The missionaries focused on the education of students with visual and hearing impairments (Katwishi, 1995); the first school for students with visual impairments opened in 1955. Despite the missionaries' early involvement with special education in Zambia, no national policies existed to guide the implementation of inclusive practices (Katwishi). Zambia did not have an articulated national policy on special education until 1977 when the Ministry of Education assumed responsibility for educating students with disabilities. Notably, three policies have provided the foundation for current practices on inclusive education in Zambia: the *Education Reform Document* (1977), *Focus on Learning* (1992), and *Educating Our Future* (1996).

The *Educational Reform Document* (1977) was the first major educational policy pertaining to special education. This document outlined recommendations for special education and specified the need for integration and adaptation of the general education curriculum to meet identified and specified individual needs of students. Furthermore, the document outlined the need for adequate funding in order for special education to be more meaningful and beneficial. The document stated the following:

> All handicapped children like any other children, are entitled to education. They should receive basic and further education by full time study like any other children. Further, since the handicapped children are a special case, there should even be 'positive

> discrimination' in their favour in the provision of facilities and amenities for educational purposes. (*Education Reform Document*, 1977, p. 23)

While the 1977 policy had positive intentions in favor of children with disabilities, the policy fell short in emphasizing children's rights to inclusive education and access to the general education curriculum.

The second major educational document, *Focus on Learning* (1992), emanated from the declaration for education for all children at the *World Conference on Education for All* held in 1990 in Jomtien, Thailand. The conference stressed the importance of access to educational opportunities. Thus, in the 1992 policy document, the Zambian government reiterated that "every person–child, youth, and adult-shall be able to benefit from educational opportunities designed to meet their basic learning needs" (*Focus on Learning*, Article 1). Notably, the 1992 policy stressed the mobilization of resources for the education of all, including children with disabilities.

The third major educational policy, *Educating Our Future* (1996) resulted from a consultation process involving the Ministry of Education, other ministries, international donors, nongovernmental organizations (NGOs), and the University of Zambia. *Educating Our Future* focused on formal education. Recurring themes in the document included educational flexibility, responsiveness to educational needs, and enhancement of quality of education for all children. In relation to students with disabilities, the following policy statements were outlined:

i. The Ministry of Education will ensure equality of educational opportunity for children with disabilities.
ii. The Ministry of Education is committed to providing education of particular good quality to students with disabilities.

iii. The Ministry of Education will improve and strengthen the supervision and management of special education across the country (*Educating Our Future*, p. 8).

This third policy, *Educating Our Future*, adopted after the Salamanca Statement, marked an important advance in special education compared to the previous two policies. In a ministerial memorandum, equality of educational opportunity was described as providing students with disabilities the same educational opportunities as their peers without disabilities (A. S. Chanda, personal communication, March 7, 2011). Thus, this policy endorsed the inclusion of children with disabilities in general education settings and set the stage for inclusive education in Zambia.

Inclusive Education in Zambia

In Zambia, the inclusion of students with disabilities is a fairly new concept. The Ministry of Education continues to review all legislation relating to persons with disabilities and endorses relevant international conventions in order to facilitate efficient and effective service delivery (Mung'omba, 2008). Sharma, Moore, and Sonawane (2009) noted that historically, many educational systems adopt an integrated model as an initial approach to inclusive education. In this model, only selected students with disabilities are included in general education classrooms. The emphasis is on the child fitting the system rather than the system adapting to meet the needs of the students. In general, integrated education "has been provided mainly to students with mild disabilities who are considered 'easy' to include in general education classrooms" (Sharma et al., p. 320). In most cases, students with severe disabilities do not attend school, although occasionally, they may attend a special school. After the Ministry of Education began administering special education in Zambia in 1977, a number of special schools and institutions were built. However, in response to international pressure toward inclusion, a number of special units and special classrooms within general education schools were

established (Kasonde-N'gandu & Moberg, 2001). By the late 1980s and early 1990s, a number of children with disabilities were placed in general education settings (Kasonde-Ng'andu & Moberg). Descriptive data on inclusive education in Zambia is, however, nonexistent.

In defining inclusive education in the Zambian context, Simui, Waliuya, Namitwe, and Munsanje (2009) noted that inclusive education is a "continuous process of increasing access, participation, and achievement for all learners in general education settings, with emphasis on those at risk of marginalization and exclusion" (Simui et al., p. 9). Furthermore, these authors stated that inclusive education is not specific to children with disabilities but includes all groups of vulnerable children (e.g., homeless children, children with HIV/AIDS, orphans). According to Simui and others "every child matters equally and no child should be left behind, as proposed by the UK and United States education policies respectively" (p. 9). Additionally, Simui et al. posit that an inclusive education program that is well conceptualized and implemented has the potential to meet the diverse educational needs of all children.

The Zambian school curriculum is centrally prescribed by the Curriculum Development Center (CDC), a department under the Ministry of Education overseeing curriculum development. Recognizing the increasing number of students with disabilities included in general education classrooms, the CDC developed a curriculum framework for all schools (CDC, 2000). The framework emphasizes that it is the responsibility of all teachers to be aware of and sensitive to students' diverse needs. In this regard, teachers have the responsibility of adapting their teaching methods to meet their students' strengths and weaknesses (Kasonde-Ng'andu & Moberg, 2001). Prior to the CDC framework, all children irrespective of disability were expected to follow the prescribed curriculum.

Identification and Placement Procedures in Zambia

According to the *Ministry of Education Statistical Bulletin* (2009), a child or individual with special needs is described as differing from others in "mental, physical, or social characteristics to such an extent that, for the full development of inherent potential, he or she needs a modification of school, college, or university provision and practice, or special educational services" (p. 66). In educational settings, a child is considered to have a disability if his or her difference from others interferes with his or her development and requires special education provisions (*Ministry of Education Statistical Bulletin*). More specifically, a child with a disability is one who (a) has a physical, hearing, or visual impairment, (b) significantly differs from others intellectually, or (c) is socially maladjusted or emotionally disturbed (*Ministry of Education Statistical Bulletin*).

According to A.S. Chanda, Senior Standards Officer for Special Education at the Ministry of Education Headquarters in Zambia, the identification process for disability begins at birth using the *Apgar Scale.* The *Apgar Scale* measures five dimensions: skin color, heart rate, reflex irritability, muscle tone, and breathing on a scale of 0-2 (total = 10). A score of 0-3 is considered critically low and a score of 4-6 is considered fairly low. A baby with a score of 7-10 is considered to be within the normal range. A low *Apgar* score indicates that the baby may require immediate medical attention, and therefore, may undergo a series of assessments to identify potential disabilities. In addition to medical professionals, parents play an important role in identifying their children's developmental delays. Parents' concerns typically are addressed by an assessment team that could include a psychologist, audiologist, ophthalmologist, counselor, teacher, and a representative from the social welfare system. The team may recommend further testing. An assessment report is then sent to the school with recommendations for placement.

With the parents' consent, teachers, school administrators, or school counselors may refer a student for testing (A. S. Chanda, personal communication, March 7, 2011).

Currently, the educational needs of students with disabilities are provided in four types of settings: (a) special education schools (n = 85) where only students with disabilities are educated with no opportunities to interact with typically developing peers, (b) special education units (n = 260) attached to general education schools where students with disabilities are educated separately but have opportunities to interact with typically developing peers during arrival/departure and recess time, (c) special education classrooms (n = 232) within general education schools where students with disabilities are educated separately but have opportunities to interact with typically developing peers during arrival/departure and recess time, as well as during teacher planned activities that foster interaction among students with and without disabilities, and (d) inclusive classrooms (number not available) where children with and without disabilities are educated in the same classrooms (*Ministry of Education Statistical Bulletin,* 2009). Typically, students with more severe disabilities are placed in special education schools and special education units where they spend most of their time with a special education teacher. Students with mild disabilities typically are placed in special education and inclusive classrooms (A.S. Chanda, personal communication, March 7, 2011).

Prevalence and Number of Students with Disabilities

The Ministry of Education in Zambia recognizes five categories of disability. These categories and the number of students served in 2009 were: (a) intellectual disability (*n* = 59,591), (b) hearing impairment (*n* = 38,267), (c) visual impairment (*n* = 32,094), (d) physical impairment (*n* = 23,054), and (e) emotional (behavioral) disorder (*n* = 10,784) (*Zambia School Directory–Special Programs,* 2009). Data indicating the number of students by disability

category served within each special education placement is non-existent. Available data on the total number of students with disabilities for the years 2004, 2005, and 2009 indicate that the number of students with disabilities appears to be increasing (i.e., from 76,144 in 2004 to 162,790 in 2009). No data are available for 2006 to 2008. Considering that systems for identifying children with disabilities are not well developed in Zambia, it is possible that many children suspected of having disabilities may not be identified and therefore they are not included in these data (A.S. Chanda, personal communication, March 7, 2011).

Teacher Preparation in Zambia

To provide support for teachers in the inclusion of students with disabilities, a resource center was established by the Ministry of Education to disseminate information about cognitive, behavioral, and other educational problems. In addition, the University of Zambia (UNZA) introduced the first Bachelor of Special Education degree program in 1996. UNZA is the only government-funded university offering degree programs in teacher education. In recent years, there has been an increase in the number of private universities offering degree programs. Despite this increase, UNZA remains the national educational institution that collaborates with the MOE to establish national standards for all teacher preparation programs.

Currently, there are three types of teacher preparation programs in Zambia: (a) two-year teacher preparation colleges to obtain a certificate, (b) two- or three-year teacher preparation colleges to obtain a diploma, and (c) four-year teacher preparation programs to obtain a degree (Banda, 2007). Teachers holding a teaching certificate teach in primary school (i.e., grades 1-7), while teachers holding diplomas teach in basic school (i.e., grades 8-9). Teachers with degrees in education teach in high school (i.e., grades 10-12). However, because of the shortage of teachers, teachers holding diplomas may teach grades 10-12 and teachers holding degrees may teach

grades 8-9. Teachers holding teaching certificates and diplomas can apply to UNZA to pursue a degree in education. These teachers enroll as in-service full-time students upon being granted paid study leave by the MOE.

The School of Education at UNZA offers degree courses for general and special education teachers. In response to worldwide trends and Zambia's policy on inclusion, faculty in the Department of Special Education at UNZA undertook a critical review of their teacher preparation program in order to respond meaningfully to the challenges of inclusive education (*University of Zambia Special Education Departmental Handbook*, 2008-2009). Students' programs of study now include Educational Psychology courses that were added to strengthen student teachers' knowledge and counseling skills so that they are able to address the psycho-social challenges faced by students with disabilities and students affected by HIV/AIDS.

Students majoring in primary, secondary, and special education complete eight weeks of field experience in their third year. At this point, the emphasis is on observation, but the students may teach one or two classes. A semester-long teaching experience is completed toward the end of the fourth year in order for students to gain teaching experience in a Zambian primary or secondary school while exposing them to the many roles and responsibilities that teachers regularly perform. Student teaching is intended to sharpen student teachers' teaching and classroom management skills. Additionally, students majoring in special education complete an 8-week counselling practicum during their fourth year. Students assume counselling duties for students with psycho-social problems (e.g., students with HIV/AIDS, students who have lost parents due to HIV/AIDS). Even though the UNZA teacher education program is designed to produce graduates with the knowledge, skills, and attitudes necessary to meet the educational needs of all children (*University of Zambia Special Education Departmental Handbook*, 2008-

2009), general education students (i.e., students majoring in primary and secondary education) are not required to take special education courses. In Zambia, inconsistencies in achieving inclusive education may exist because of the structure of teacher preparation programs, insufficient supports provided to facilitate the inclusion of children with disabilities, and teachers' attitudes toward students with disabilities.

Purpose of the Study

Without doubt, teachers' attitudes about inclusion are critical to the successful implementation of inclusion. Examining future teachers' attitudes toward inclusive education is important. Changing demographics increase the likelihood that future teachers will work in diverse classrooms. Mushoriwa (2000) pointed out that "in many countries, inclusive education is being introduced before thorough studies on acceptability of inclusive education are conducted" (p. 143). Despite the current state of inclusive education in Zambia, no published research about teachers' attitudes and inclusion is available. Given the assumption that teachers' attitudes toward inclusion can significantly impact the success of educational policies, examining attitudes that may be formed during teacher education programs is imperative (Parasuram, 2006). The purpose of this study was to examine university education students' attitudes toward including students with disabilities in general education settings in Zambia. As Zambia continues to implement inclusive education, there is a growing need for empirical evidence to provide professionals, advocacy groups, and policy makers with concrete ideas for planning and successfully implementing inclusive education. Specific research questions addressed were:

1. What are the attitudes of University of Zambia education students toward inclusion?

2. What demographic characteristics (e.g., age, gender, year in college, contact with a person with disability, major in college, and teaching experience) relate to University of Zambia education students' attitudes toward inclusive education?
3. What do University of Zambia education students report as perceived benefits of inclusive education for students with and without disabilities?
4. What resources do University of Zambia education students believe are necessary to make inclusive education successful?

Chapter 2

Literature Review

Over the last few decades, the philosophy of inclusion has played a key role in efforts to improve educational services for students with disabilities (Praisner, 2003). Consequently, the number of students included in general education classrooms has steadily increased (Cook, Cameron, & Tankersley, 2007; *National Center for Educational Statistics,* 2008; Weiss & Lloyd, 2003). With the influence of the US and other international trends, Zambia has focused on improving access and equity for children with special needs. Despite the implementation of inclusive education in Zambia, no empirical studies have focused on inclusion in this country. The limited research that is available has focused on the Zambian government's commitment to educating students with disabilities and reveals the challenges faced by the government (Abosi, 2000b).

The purpose of this chapter is to highlight the literature on teachers' attitudes toward the inclusion of students with disabilities. Before reviewing that literature however, a review of literature regarding attitudes toward disability in Southern Africa is presented. In this context, Southern Africa refers to countries in SADC, namely Botswana, Lesotho, Malawi, Namibia, South Africa, Swaziland, Zambia, and Zimbabwe. Specific examples of the status of special education are provided from Botswana, South Africa, and Zimbabwe because these countries offer similar experiences to Zambia, the context of the current study, in terms of the political, social, and cultural aspects of society (Kabzems & Chimedza, 2002). Next, a discussion of the literature on factors that influence teachers' attitudes toward inclusive education in the US is presented. Then, literature that addresses factors that influence pre-service teachers' attitudes toward inclusion is discussed.

Attitudes Toward Disability in Southern Africa

Status of Special Education

Until recently, special education has not been a government priority in most Southern African countries (Chitiyo & Chitiyo, 2007). Zimbabwe, for example, did not have a national policy on special education until 1980, and Botswana did not take direct responsibility for educating individuals with disabilities until 1984 (Abosi, 2000a). Despite having an articulated policy on special education since 1977, Zambia's implementation of policy addressing inclusive education has been gradual and difficult (Kalabula, 2000). Like most developing nations, Southern African countries are experiencing challenges in their attempts to address the educational needs of their populace (Chitiyo & Chitiyo). Specific challenges that have been identified as major obstacles in the provision of special education services include a lack of government support, cultural influences, limited resources, and poverty. The status of special education in three SADC countries (Zimbabwe, Botswana, South Africa) is described in greater detail in the following paragraphs. These three countries are similar to Zambia in terms of political, social, and cultural aspects of the society.

Zimbabwe attained independence in 1980 from Great Britain after a 15-year liberation struggle. Until 1980, charitable organizations and churches provided for the education of children with disabilities (Chitiyo, 2006; Chitiyo & Chitiyo, 2007; Kabzems & Chimedza, 2002). Zimbabwe did not have a national policy on special education and involvement from the Ministry of Education on issues pertaining to special education was minimal. The education of children with disabilities was viewed more as a moral and religious obligation than a right to education for all children (Peresuh & Barcham, 1998). The 1987 Education Act (Government of Zimbabwe, 1987) made education a right for all children, including those with various

disabilities. Several subsequent educational policies addressed specific issues in special education: the *National Act of 1992* (Government of Zimbabwe, 1992) focused on the welfare and rehabilitation of people with disabilities in all spheres including education. In addition, Zimbabwe's *Special Education Policy Statement* (Government of Zimbabwe, 1994) provides for early detection, intervention and prevention of disabilities, the inclusion, where possible, of children with disabilities in general education settings and the development of resource centers to localize inclusion (Peresuh & Barcham). The approach that Zimbabwe has taken toward inclusion allows for the inclusive and segregated provision of education to run in parallel. This approach is based on a belief that not all children benefit from inclusion (Peresuh & Barchanan).

The government of Botswana has committed itself to educating students with disabilities based on the *Revised National Policy on Education* (1994). Although special education has been an integral part of the Botswana education system since 1984, the *Revised National Policy on Education* gave it a new impetus, enabling the Ministry of Education to increase access and equity to education for children with special educational needs. Through this policy, the government of Botswana has committed to providing education for all children, including those with disabilities. The government of Botswana considers access to education a fundamental human right. Prior to the adoption of the *Revised National Policy on Education*, special education provision in Botswana was dominated by special education units in regular schools. An important development in recent years has been a growing recognition that children with special educational needs should be included within general education environments (Matale, 2000). Inclusive education is the latest approach to addressing the diverse needs of individuals within general education school settings in Botswana.

Accommodation and placement of students with disabilities in schools brings major challenges to the Ministry of Education as it strives to educate its citizens. Abosi (2000a) noted that the implementation of special education policies is in need of critical examination. Abosi emphasized the importance of establishing guidelines for planning and policy implementation. The challenge for the government of Botswana in realizing inclusive education is the shortage of specialized educators and lack of teacher preparation colleges (Chitiyo & Chitiyo, 2007). One of the issues that Botswana is still battling is making curriculum accessible to all children. The majority of teachers are not trained to meet the needs of a diverse group of students. Consequently, they are unable to adapt the curriculum to meet the diverse needs of children in general education settings (Abosi; Chitiyo & Chitiyo; Matale, 2000).

South Africa is experiencing the aftermath of the Apartheid system that operated on the principle of segregation among its inhabitants. The physical structure of school services, human resources, and instructional resources have varied along racial and ethnic lines (Lomotsky & Lazarous, 2001) as a result of apartheid. Post-apartheid South Africa is redressing the imbalances created by the previous government's policies through legislation, new educational policies, and constitutional commitments (Department of Education, South Africa, 1997). Consequently, the South African government has made a commitment to provide services to all children in inclusive settings (Eloff, Engelbrecht, Swart, & Forlin, 2000).

The *National Commission on Special Needs Education and Training* (NCSNET) and the *National Committee for Education Support Services* (NCESS) compiled a document in 1997 based on the principles of democracy, participation, and the need to find indigenous responses to South Africa's educational needs. The NCSNET/NCESS report recommended integrating the separate systems of education into one system of education that recognizes and responds to the

diverse needs of learners in South Africa. Subsequently, the South African Ministry of Education released a paper, *Special Needs Education Building: An Inclusive Education And Training System* (2000), indicating the shift of policy from using segregation, according to the various categories of disabilities, as an organizing principle for schools and institutions, to emphasizing support for learners within general education settings (Eloff et al., 2000).

The lack of legislative support has affected the development of education in most Southern African countries (Chitiyo & Chitiyo, 2007). One can deduce that education ranks low among Southern African governments' priorities as evidenced by minimal fiscal resources allocated to the education sector by the governments. The World Bank (2000) reported that expenditures for education are allocated disproportionately and are directed more toward academic programs than technical and general skills programs, with even less money directed toward special education. An examination of public expenditures on education for the Southern African region reveals that six of the countries (all except Lesotho) reduced their expenditures (as a percentage of national income) on education between 1990 and 2002 (United Nations Development Program, 2006). For the most part, special education in most Southern African countries has relied on charity from churches and NGOs since the colonial period (i.e., from late 1800s to late 1960s for most Southern African countries, 1980 for Zimbabwe, and 1990 for Namibia) (Chitiyo & Chitiyo; Kabzems & Chimedza, 2002; Persuh & Barcham, 1998).

For a long time, the provision of services to individuals with disabilities in Southern Africa was based on the charity model (Coleridge, 1993). The charity model linked schools for children with disabilities to churches or NGOs. The church or organization provided the school with personnel, funding, and equipment. However, many charitable organizations tended to emphasize their own agenda, recruiting individuals who had expertise in a particular area of

special education (e.g., visual impairment, hearing impairment). According to Kabzems and Chimedza (2002), these experts fell short in appreciating cross-disability challenges and cross-cultural attitudes. Thus, for a long time, church and NGO assistance for individuals with disabilities in the Southern African region was limited to two categories of disability, hearing and visual impairments.

Cultural Beliefs and Disability

The treatment of people with disabilities and the attitudes displayed toward them are specific to local history and culture (Kabzems & Chimedza, 2002). However, one historical human practice that seems to prevail in all human cultures is the marginalization of persons with disabilities (Abosi, 2000a; UNESCO, 1994). Historically, societies have been indifferent to the social, economical, and educational needs of people with disabilities (Abosi; Kabzems & Chimedza).

Social interaction among African people can be characterized as a community-oriented model (Kabzems & Chimedza, 2002). In this model, development of the individual is extricably linked to and focused on meeting community needs (Kabzems & Chimedza). Personal growth is measured by an individual's contribution to the life and welfare of the community. The status and inclusion of a person within a community is determined by his or her family and kinship ties, competence in fulfilling tasks considered useful for the household, and his or her ability to behave in a socially acceptable manner (Ingstad, 1995). Children with disabilities may participate, to various degrees, in different roles within the African community (e.g., carrying water, herding cattle, assisting with domestic chores). The willingness of any society to allocate resources for individuals with disabilities largely depends on the anticipated role the individual with a disability will have in the community as an adult (Groce, 2004).

Social and cultural factors have played a role in the provision of special education in Southern Africa. Chitiyo and Wheeler (2005) attest that until recently, individuals with disabilities did not command respect in most African countries. The common social practice was to isolate and separate persons with disabilities from being an integral part of society. In some societies, individuals with disabilities were considered a burden to the family and to the community (Kabzems & Chimedza, 2002). The prevailing belief has been that individuals with disabilities are unnaturally conceived or bewitched, and therefore, neither fully human nor a part of the community (Abosi, 2000a; Ingstad, 1997; Kabzems & Chimedza).

Social acceptance and attitudes toward individuals with disabilities in Southern African cultures are reflected in the vocabulary used to refer to these individuals (Chitiyo & Chitiyo, 2007; Kabzems & Chimedza, 2002). Several Bantu languages (e.g., Chichewa, which is spoken in Zambia, and Shona, spoken in Zimbabwe) use derogatory terminology (e.g. "chirema," which means cripple and "chimunu," which means dump) to refer to people with disabilities. The prefix "chi" used in both words is normally used for objects and is considered pejorative when used with humans. Thus, these words remind individuals with disabilities of their place in society through spoken and written language (Chitiyo & Chitiyo; Kabzems & Chimedza). The Chichewa language, prevalent in Zambia, is an example of how a culture continually reinforces the lower status of persons with disabilities through everyday language (Kabzems & Chimedza).

Negative cultural attitudes exist not only in the community, but also among family members, especially fathers and paternal relatives (Chimedza, 2000; Kabzems & Chimedza, 2002). A husband may accuse his wife of promiscuity "because there is no way that he could have contributed to the 'creation' of a child with a disability" (Kabzems & Chimedza, p. 151). Disability may be associated with maternal wrongdoing, witchcraft, evil spirits, or punishment

by God. Sometimes, having a child with a disability is perceived as a bad omen. A family may be accused of 'sacrificing' their child in exchange for good crops (Kabzems & Chimedza). Kalabula (2000) observed that parents may feel ashamed and embarrassed to divulge information about their children with disabilities. The family may become overly protective of the child with a disability leading to social isolation. According to Chitiyo and Chitiyo (2007), this attitude may prevent children with disabilities from accessing education if they are secluded. Such societal isolation has total disregard for the educational and economical needs, or human rights of people with disabilities (Chitiyo & Chitiyo; Ingstad, 1995).

Some of these cultural beliefs still hold strong in Southern Africa. Katwishi (1995) noted that such beliefs may lead to people with disabilities being treated with fear and apprehension. These cultural beliefs also may influence the way students preparing to be teachers perceive students with disabilities and may subsequently affect their attitudes toward the inclusion of students with disabilities in general education settings.

Teachers' and Pre-service Teachers' Attitudes toward Inclusion

A systematic review of literature pertaining to teachers' and pre-service teachers' attitudes toward inclusion was conducted. First, the author searched electronic databases from 1996 to 2010. The rationale for including this time period was that Scruggs and Mastropieri (1996) reviewed previous literature on teacher attitudes in their comprehensive meta-analysis (1958 to 1995). However, because Scruggs and Mastropieri's meta-analysis focused on practicing teachers in the United States, earlier studies that focused on teachers' and pre-service teachers' attitudes and studies that were conducted in an international context were included in the current literature review. A search of *Dissertation Abstracts* was conducted to identify relevant studies. Following the database search, a hand search of prominent journals in special

education from 1996 to 2010 (including *Exceptional Children, Journal of Special Education, Remedial and Special Education, Teacher Education and Special Education*) was conducted. Finally, the researcher read and reviewed all pertinent papers. The literature regarding practicing teachers and pre-service teachers' attitudes toward inclusion and students with disabilities is discussed in the following sections.

Teachers' Attitudes Toward Inclusion

Several researchers (Avramidis, Bayliss, & Burden, 2000a; Bender, Vail, & Scott, 1995; Cook, 2002; Scruggs & Mastropieri, 1996; Ward, Center, & Bochner, 1994) have examined teachers' attitudes toward inclusion and have found teacher attitude to be a critical factor in the implementation of inclusive practices. Results from the research on teacher attitudes are mixed. Some findings reveal positive teacher attitudes toward inclusion. In their research synthesis examining teacher attitudes toward inclusion, Scruggs and Mastropieri summarized the results of 28 studies conducted between 1958 and 1995. They found that overall more than two thirds of teachers supported the concept of inclusion. Similarly, other researchers (e.g., Avramidis et al., Rojewski & Pollard, 1993; Villa, Thousand, Meyers, & Nevin, 1996; Ward et al., 1994) found that teachers supported educating students with disabilities in general education settings. Other researchers (e.g., Coates, 1989; Giangreco, Dennis, Cloninger, Edelman, & Lesar, 1993; Larrivee & Cook, 1979; Minke, Bear, Deemer, & Griffin, 1996; Reiter, Schanin, & Tirosh, 1998; Semmel, Albernathy, Butera, & Lesar, 1991) found that teachers have negative attitudes toward inclusion. Additionally, a few researchers (e.g., Bennett, Deluca, & Bruns, 1997; Leyser & Tappendorf, 2001) indicated that teachers have uncertain or neutral attitudes toward inclusion.

Factors Related to Teachers' Attitudes Toward Inclusion

Several factors are related to teachers' attitudes toward educating students with disabilities in inclusive classrooms. These factors include (a) level and type of training, (b) nature and severity of the student's disability, (c) knowledge and exposure to students with disabilities, and (d) school support services (Avramidis & Norwich, 2002; Scruggs & Mastropieri, 1996). Researchers have explored these factors in relation to teachers' attitudes toward inclusion. A brief review of this research is presented below.

Level and type of training. Although there is evidence that training influences teachers' attitudes toward inclusion, very few general education teachers have expertise or training to adequately support inclusion. In their meta-analysis, Scruggs and Mastropieri (1996) reviewed surveys conducted in nine states between 1975 and 1994. Respondents (2,900 general and special education teachers) were asked whether general education teachers had sufficient expertise for including students with disabilities or adequate training for inclusion. Overall, 847 of the 2,900 general education teachers (29.2 percent) reported that general education teachers had sufficient expertise or training for inclusion. Eighty-one of the 355 special education teachers in five states (22.8 percent) indicated that general education teachers had sufficient expertise or training. These results suggest that general education teachers lack expertise or training for successfully implementing inclusion.

Teachers with training in special education may have more positive attitudes than teachers with little or no training at all. Van Reusen, Shoho, and Barker (2001) investigated how high school teachers' attitudes toward the inclusion of students with disabilities into the general education classrooms were affected by teachers' special education training, experience, gender, and content area taught. Levels of special education training were divided into four domains:

teacher training, academic climate, academic content/teacher effectiveness, and social adjustment. One hundred twenty-five high school teachers in a suburban high school in San Antonio, Texas, responded to a survey. Students receiving special education services at the school included students with learning disabilities, behavioral disorders, and visual and hearing impairments.

Results of this study indicated that teachers' attitudes about including and teaching students with disabilities in general education classrooms may be related to levels of special education training. Van Reusen and colleagues (2001) found significant differences in the overall attitudinal responses of teachers who reported adequate to high levels of special education training or experiences and teachers with little or no training in special education. Teachers who reported positive attitudes about inclusive education and teaching students with disabilities in their classrooms also had the highest level of special education training. Fifty-four percent of the high school teachers' scores reflected negative attitudes toward the inclusion of students with disabilities in their general education classrooms. The most negative attitudes were held by teachers with the least amount of special education training and knowledge in teaching students with disabilities. Responses from these teachers reflected an attitude or belief that the inclusion of students with disabilities would negatively impact the learning environment, their delivery of content instruction, and the overall quality of learning in the classroom.

Similarly, Bender et al. (1995) conducted a survey study on the relationship between teachers' attitudes toward inclusion and the number of special education courses completed. Participants included general education teachers from 11 schools in three school districts in Georgia. Each teacher completed a questionnaire that included a six-question Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Results indicated a positive correlation

between attitudes toward inclusion and the number of courses taken that focused on teaching children with disabilities. Teachers with more coursework had more positive attitudes toward inclusion.

In her study, deBettencourt (1999) investigated the relationship between the number of special education courses taken by general education teachers and the instructional strategies they used to teach students with disabilities in inclusive classrooms. All the general education teachers (N = 59) from three schools in a rural district in a southeastern state in the United States participated in this study. Two of the three schools had two special education teachers who provided resource support, and one school had three resource teachers. The teachers provided services to students identified as educable mentally handicapped, behaviorally/emotionally handicapped, learning disabled, and other health impaired. Forty-four (approximately 75%) of the teachers held either a Bachelor of Arts or a Bachelor of Science degree and the remaining 15 (25%) held Master's degrees. Twenty-two teachers (41.5%) had not taken any courses focusing on how to teach students with disabilities, twenty-one teachers (39.6%) had taken one or two courses related to specialized strategies, and 10 teachers (19%) had taken three or more courses related to special education.

deBettencourt's participants responded to the *Bender Classroom Structure Questionnaire* (Bender, 1992), which includes three sections. The first section focuses on background information about the teacher; while the second section includes a 40-item Likert scale concerning the use of instructional strategies within general education classrooms. This second section has two sub-scales: *Individualized Instructional Strategies* and *Metacognitive Instructional Strategies*. According to Bender, individualized instruction includes peer tutoring, cooperative learning, grouping arrangements, precision teaching, and effective instructional

behaviors. Metacognitive strategies include memorization techniques, self-monitoring, and assertive discipline. The third section of the questionnaire contains the *Mainstream Attitude Survey* (Bender et al., 1995), a six-item Likert scale that measures teachers' beliefs about inclusion. Three separate scores are obtained from the *Bender Classroom Structure Questionnaire*: *Individualized Instruction*, *Metacognitive Instruction*, and *Mainstream Attitude Survey*. A high *Individualized Instruction* score indicates frequent usage of individualized strategies (the highest total possible score is 65), a high *Metacognitive Instruction* score indicates frequent use of metacognitive strategies (the highest total possible score is 55), and a high score on the *Mainstream Attitude Survey* indicates a more positive belief about inclusion (the highest total possible score is 30). Percentages for teachers who responded to each subscale were calculated.

Findings from this study indicated that teachers who had not taken any special education coursework had an average score of 45.41 on the *Individualized Instruction* subscale, and had an average score of 37.46 on the *Metacognitive Instruction* subscale. Teachers who had taken one or two special education courses had an average score of 46.28 on the *Individualized Instruction* subscale, and an average score of 37.57 on the *Metacognitive Instruction* subscale. Teachers who had taken three or more special education courses had an average score of 52.4 on the *Individualized Instruction* subscale, and an average of 41.7 on the *Metacognitive Instruction* subscale. In addition, results from the attitude scale indicated that thirty-two (54%) of the teachers believed that inclusion was beneficial for students with disabilities. The author concluded that a teacher's willingness to include students with disabilities in a general education classroom may be influenced by coursework taken in special education.

In their study, Jobe, Rust, and Brissie (1996) investigated the relationship between inclusion in-service training and attitudes about inclusion. The authors surveyed a national sample of 162 teachers from 44 states. Twenty-nine of the teachers had special education teaching experience. One hundred thirty-eight had over 6 years of teaching experience and 72 respondents indicated that they had participated in in-service training on inclusion. The teachers responded to a survey that focused on the benefits of inclusion, management issues when dealing with students with disabilities, teacher preparation to work with students with disabilities, and a global measure of attitudes about inclusion. The results showed significant but modest correlations between in-service training on inclusion and the benefits of inclusion, and teachers' perceived ability to teach students with disabilities. These results suggested that teachers with more in-service experience on the topic of inclusion felt slightly more positive about inclusion.

Lanier and Lanier (2000) conducted a study on the effects of experience on teachers' attitudes toward including students with disabilities in general education classrooms. Their study was designed to test the hypothesis that in the years following general education teachers' completion of the state required introductory special education course, there would be a decline in their willingness to include students with disabilities. Participants were 28 full-time general education teachers. The survey, consisting of 60 classroom scenarios representing varying degrees of challenge to the teachers, was completed on two separate occasions: immediately after completing the course, and after they had taught a minimum of three years. An example of a difficult scenario was: "Flora has neither bladder nor bowel control and must be taken to the bathroom at frequent times." Despite a wide range of challenging scenarios, the teachers initially scored 88% of hypothesized children as acceptable for inclusion into general education classrooms, provided adequate resources were available. There was no significant difference in

the results at the three-year follow-up: 47% of responses were scored identically during both survey sessions. When teachers changed their impression of a scenario between the initial and follow-up surveys, the migration from one score to another appeared to be evenly divided among optimistic (25%) and pessimistic (28%) shifts.

In summary, it appears that teacher training was found to influence teachers' attitudes toward inclusion. Research indicates that teachers who had completed courses in special education exhibited more positive attitudes toward inclusion compared to teachers who had no training. Furthermore, the Lanier and Lanier (2000) study demonstrated that a willingness to include students in general education classrooms after completing a course in special education remained constant over time.

Nature and severity of disability. The type and degree of a child's disability has been found to impact the acceptance of inclusive practices among teachers (Ellins & Porter, 2005; Hastings & Oakford, 2003). Teachers are less accepting of students with severe disabilities compared to those with mild disabilities (Forlin, Douglas, & Hattie, 1996; Mushoriwa, 2001; Scruggs & Mastropieri, 1996; Smith, 2000; Ward, Center, & Bochner, 1994). Additionally, teachers appear to be less willing to include students with emotional and behavioral disorders in general education settings (Avramidis, Bayliss, & Burden, 2000a; Heflin & Bullock, 1999; Stoiber, Gettinger, & Goetz, 1998).

Type of disability. Teachers' variability in support for inclusion may be attributed to type of disability. In their research synthesis, Scruggs and Mastropieri (1996) identified 28 reports in which teachers were surveyed about their perceptions of inclusion. A total of 7,385 teachers in seven states and one Australian province were surveyed. When asked, 65% of the teachers indicated support for including students with different types of disabilities. However,

general education teachers' perceptions appeared to differ depending on the condition of the disability. While 71.9% of the teachers supported inclusion for students with learning disabilities, approximately one quarter of the educators supported inclusion for students with emotional/behavioral disorders (28.9%) and students with educable mental retardation (22.8%).

Likewise, Forlin (1995) indicated that teachers' attitudes toward inclusion appear to vary depending upon the type and severity of the disability. In a written questionnaire, 273 educators (43 principals, 198 general education teachers, and 75 educational support teachers) were asked to rate whether or not students with varying intellectual or physical disabilities (i.e., mild, moderate, and severe) should be included in general education classrooms. Ninety-five percent of the educators believed that a hypothetical child with a mild physical disability should be included in general education classrooms, while six percent of the respondents considered the inclusion of a hypothetical child with severe physical disabilities to be acceptable. Eighty-six percent of the study participants believed in the inclusion of a hypothetical child with mild intellectual disabilities, while one percent considered the inclusion of a hypothetical child with severe intellectual disabilities to be appropriate.

In another survey study, Ward, Center, and Bochner (1994) found that children with intellectual disabilities were the least favored for inclusion. Participants included 5,110 administrators, principals, teachers, and psychologists. Results indicated that 80% of the participants supported inclusion. But, when questioned about specific disability conditions, participants favored the inclusion of students with mild learning disabilities. The researchers concluded that teachers' ratings were based on how many modifications and adaptations were necessary to successfully include children with disabilities. Respondents were of the opinion that students with mild learning disabilities did not require extensive adaptations.

In a later study, Mushoriwa (2001) surveyed 400 primary school teachers in Harare, Zimbabwe, to assess their attitudes toward including children with visual impairments in general education classes. Questionnaires and interviews were used to collect data. The questionnaire had 14 items on a Likert scale ranging from 5 (strongly agree) to 1 (strongly disagree) with a maximum score of 70 and a minimum score of 14. A score above 35 was regarded as positive while a score below 35 was regarded as negative. Results indicated that the total number of low-scale scores was 345 (86%) and the total number of high-scale scores was 55 (14%). The majority of teachers (86%) were opposed to including students with visual impairments in general education classes. Responses indicated that 90% of teachers thought that including a student with visual impairments in general education environments would require additional assistance (e.g., assistance negotiating their environment) and thus, students with disabilities would be shunned by their typically developing peers. Eighty-five percent of the teachers indicated that inclusive education did not automatically guarantee that typically developing children would play with children with visual impairments. The majority of teachers (88.75%) also indicated that inclusive education could increase the amount of social rejection by typically developing children toward their peers with visual impairments.

Severity of the disability. Severity of the disability also appears to affect general education teachers' opinions of inclusion. Smith (2000) conducted a study about secondary school teachers' attitudes toward the `inclusion of students with severe disabilities in their neighborhood schools and/or in general education classrooms. A Likert-scale questionnaire was sent to 100 general education teachers in one urban high school (student population = 2,500) in Tennessee. Forty-six of the questionnaires were returned. Results indicated that severity of disability impacted general education teachers' opinions of inclusion. Seventy-eight percent of

the teachers agreed with or were undecided about the concept of neighborhood schools serving students with severe disabilities. When teachers were asked whether students with severe disabilities should be educated at least half of the day in general education classrooms, eleven percent of the respondents supported the idea of educating students with severe disabilities in general education classrooms.

Overall, general education teachers appear to be less willing to include students with emotional and behavioral difficulties. Scruggs and Mastropieri (1996) noted that in several surveys, teachers were asked about the possible classroom effects of inclusion. Specifically, teachers were asked whether including students with disabilities in general education classrooms would "disrupt" or "be disruptive." Of the 363 general education teachers who were surveyed, 110 indicated that students with disabilities could be harmful to the classroom. Also, 81.6% of the teachers noted that inclusion could create "additional work," for teachers perceived inclusion as requiring significant changes in their classroom procedures.

In summary, the nature and severity of a student's disability appears to be related to teachers' willingness to include students with disabilities in general education classrooms. Two factors that seem to influence teachers' attitudes toward inclusion are severity of the students' disability and the amount of teacher responsibility needed to facilitate inclusion. Teachers also tend to believe that students with severe disabilities may require more teacher attention. Teachers appear to favor the inclusion of students with mild disabilities because they require the least amount of support in general education settings. The inclusion of students with emotional behavior disorders appears to be less favorable among teachers because of their perceived disruption and negative impact on the inclusive environment.

Knowledge and Exposure to Students with Disabilities

Exposure to children with disabilities appears to affect attitudes toward inclusive education. In a qualitative study by Arbeiter and Hartley (2002), participants included 28 teachers with 1 to 7 years of teaching experience in inclusive classrooms, three principals, and 23 students with disabilities in three inclusive primary schools in different districts of Uganda. Data sources were direct observations of the teachers, individual interviews, focus group discussions, and logbooks. The results of this study suggest that the teachers viewed the process of inclusion as "getting used to" having students with disabilities included in general education classrooms. The teachers described inclusion as a personal change process, starting from an initial state of ignorance, fear, prejudice, or lack of confidence to the development of a relationship, confidence, skills, and coping strategies. The teachers reported that their attitude change was related to exposure to children with disabilities and positive experiences with inclusion.

Other research has shown that teachers who have implemented inclusion in their classrooms for a longer period of time are more likely to have positive attitudes toward students with disabilities. In an attempt to identify factors related to teachers' attitudes toward inclusion, Avaramidis and Kalvya (2007) investigated the attitudes of 155 general education primary teachers from 30 primary schools in Northern Greece. Thirty-nine teachers were from ten schools that offered inclusive education and had staff with substantial experience teaching students with disabilities. One hundred-sixteen teachers were from 20 general education schools randomly selected across the region. Questionnaire data were collected that included demographics and the *My Thinking about Inclusion Scale* (Stoiber et al., 1998), a 28-item self-report instrument. The development of the *My Thinking about Inclusion Scale* was informed by earlier attitudinal studies. Participants indicated the extent of their agreement with statements

about inclusion on a 5-point Likert scale. Results indicated that teachers who were actively involved in teaching students with disabilities had significantly more positive attitudes compared to their counterparts with little or no experience.

Parasuram (2006) investigated whether frequency of contact and closeness to a person with a disability affects the attitudes of teachers toward people with disabilities and toward the inclusion of students with disabilities in general education settings. Three hundred ninety-one general education teachers in Mumbai participated in Parasuram's study. The teachers responded to two surveys: *Attitude toward Disability Scale* (Berry & Dalal, 1996) and *Attitude toward Inclusive Education Scale* (Wilczenski, 1992). In addition, participants completed a Personal Information Form that included variables of interest such as age, gender, whether the respondent was acquainted with a person with a disability or had a family member with a disability and participants' frequency of meeting with individuals with disabilities. Findings revealed that teachers who were acquainted with a person with a disability had significantly more positive attitudes toward people with disabilities and towards inclusion than teachers who were not acquainted with a person with a disability. No significant differences were found, however, between the attitudes of teachers who had a family member with a disability and teachers who did not have a family member with a disability. Furthermore, frequency of contact and closeness of contact with a person with a disability yielded no significant differences among respondents.

Evidence appears to indicate that teachers' negative or neutral attitudes at the beginning of inclusive education may change over time as a function of experience and the expertise that develops through the process of implementation. For example, LeRoy and Simpson (1996) studied the impact of inclusion over a 3-year period in the state of Michigan. Their findings showed that as teachers' experience with children with special education needs increased, their

confidence to teach children with special needs also increased. Similarly, Avramidis et al. (2000a) explored the extent to which previous experience with inclusive education led to more positive (or negative) attitudes toward inclusion. Participants were 81 teachers from 12 primary and four secondary schools in the UK. A survey consisting of personal and situational variables was administered to participants toward the end of the school year. Results indicated that teachers who had experience with inclusion had significantly more positive attitudes toward inclusion than teachers without experience. In addition, teachers who had implemented inclusive programs for longer periods of time held significantly more positive attitudes than teachers with little or no experience.

In conclusion, research indicates that teachers with more experience working with students with disabilities have more favorable attitudes toward inclusion than teachers with little or no experience. Also, researchers have noted that mere contact with individuals with special needs may not lead to the formation of positive attitudes toward inclusion. Not surprisingly, it seems that exposure and experience working with students with disabilities is related to one's attitudes.

Support Services for Teachers

Research has suggested that, although teachers' attitudes toward inclusion can be affected by several variables, one of the most important variables is the level and nature of support that teachers receive as they include children with disabilities in general education classrooms. Based on this assumption, Clough and Lindsay (1991) have argued that there might be variations in teachers' attitudes within the UK, reflecting the levels and history of support in each Local Education Authority (LEA). Indeed, LEAs vary in the provisions they make to schools through staffing and funding, or through support services, such as the provision of special education

teachers. Some LEAs have promoted inclusive education for a while whereas for others the pace of change has been slow.

Lack of, or shortage of, needed support services has emerged in the literature as a barrier to inclusive education. In attempting to identify supports critical to the success of inclusion, Werts, Wolery, Caldwell, and Salisbury (1996) conducted a survey to determine whether consensus existed among general education and special education teachers on the conditions and supports that are critical to including students with substantial disabilities into general education classrooms. A questionnaire was sent to 164 teachers (119 general education teachers and 45 special education teachers) in Pennsylvania. These teachers had experience including students with moderate to severe disabilities in general education classrooms. The questionnaire included two open-ended items asking respondents to list supports required and problems related to including students with substantial disabilities in general education classrooms. When asked to list problems they had faced in including special education students, the most frequently identified category was lack of training (34%). Other major problems faced when serving children with severe disabilities that were identified by the teachers included: lack of time (31%); lack of administrative support (30%); and teacher attitudes and expectations that do not foster success (19%).

In their meta-analysis, Scruggs and Mastropieri (1996) consistently found that small percentages of general education teachers reported having adequate support with regard to their inclusion efforts. The needs identified included time; inclusive education training (on-going in-service training); personnel resources (consultant special education teachers and paraprofessionals in their classrooms); and material resources (adequate curriculum materials and equipment appropriate to the needs of students with disabilities). In addition, some teachers

noted that class size should be reduced to less than 20 students when students with disabilities are included.

Rose (2001) explored teachers' perceptions about necessary conditions for including students with disabilities. Semi-structured interviews were conducted with 20 teachers and seven principals. All teachers had a minimum of three years teaching experience. Study participants were asked to identify supports that would lead to greater inclusion. The interviewees noted the importance of classroom support. Nine of the teachers regarded the provision of additional staffing as a critical factor in enabling the success of inclusion. The principals expressed similar concerns, that additional support staff was needed to enable children with disabilities to access the curriculum. Twenty-five percent of the interviewed teachers believed that behavior management of students with disabilities took an inordinate amount of time compared to the management of students without disabilities. Only one head-teacher perceived the need for extra time for planning, although several participants commented on being distracted from giving adequate time to other students in their classrooms.

Likewise, Snyder (1999) conducted a qualitative study on general education teachers' attitudes and concerns about special education in their schools. Data were drawn from in-service teachers in graduate level classes and from workshops in approximately one third of the counties in South Carolina. The teachers were asked to reflect on the status of special education in their respective schools and the type of support they received from their administrators and special education faculty regarding working with students with disabilities. Seventy-five percent of the teachers indicated that the administration was not supportive while 25% of the teachers perceived their administration as being supportive of the general education teachers. Regarding special education faculty's support for general education teachers, 55% of the teachers stated that

special education faculty was not supportive while 45% of the teachers indicated that the special education faculty was supportive of the needs of the general education teachers.

More recently, Lohmann and Bambara (2006) investigated the supports needed by elementary school teachers to successfully include students with behavioral challenges in their classrooms. Three semi-structured interviews were conducted with 14 teachers whose classes included children with developmental disabilities who exhibited challenging behaviors. Findings indicated that teachers most frequently cited insufficient time for planning and implementing strategies, conflicts with parents, and disagreements with administrators and other school staff as inhibitors to successful inclusion. The researchers identified two categories of supports: school wide and situation specific. At the school-wide level, teachers identified a need for an articulated school vision for inclusion, the willingness or positive attitudes of colleagues, and the availability of paraprofessionals. For situation-specific levels of support, teachers listed interpersonal support, established collaboration, parental supports, and training opportunities to increase their expertise as important.

In summary, teachers have identified the need for support from school administrators as critical to successfully implement inclusion. Administrative support can be achieved through the provision of time for inclusion efforts, inclusive education training (on-going in-service training), personnel resources, and material resources. Clearly, these issues raise concerns about the skills and preparation of teachers to ensure effective instruction in inclusive classrooms. These concerns may inadvertently have implications for teacher preparation programs and how these programs affect pre-service teachers' perspectives toward inclusion. The following section highlights research on pre-service teachers' attitudes toward inclusion and factors related to the formation of these attitudes.

Student Teachers' Attitudes toward Inclusion

Pajares (1992) suggested that it is important to understand teachers' and student teachers' attitudes in order to improve their teaching practices and professional development. According to Huber (2009), understanding factors that influence student teachers' attitudes may provide information to teacher preparation programs that may help them intervene to promote desired student teacher attitudes. In this vein, a number of researchers have studied variables related to student teacher attitudes toward inclusion. While the results of some of these studies (e.g., Avramidis et al., 2000a; Caroll, Forlin, & Jobling, 2003; Lambe & Bones, 2006; Martinez, 2003; Romi & Leyser, 2006; Sharma, Moore, & Sonawane, 2009; Yellin et al., 2003) indicate that student teachers have positive attitudes and beliefs about the benefits of inclusion, others (e.g., Andrews & Clementson, 1997; Bradshaw & Mundia, 2006; Loreman, Sharma, Forlin, & Earle, 2005; Subban & Sharma, 2006) reveal concerns about inclusive education.

Research on student teacher attitudes toward inclusion indicates that student teachers are concerned that not all students may benefit from inclusion (Andrews & Clementson, 1997; Larrivee & Cook, 1979; Minke et al., 1996; Reiter, Schanin, & Tirosh, 1998; Romi & Daniel, 2001; Semmel et al., 1991). Students with emotional behavior disorders, intellectual disabilities, and multiple disabilities appear to cause more concern and stress to student teachers than students with other disabilities (Avramidis, Bayliss, & Burden, 2000b; Cook, 2002; Ellins & Porter, 2005; Hastings & Oakford, 2003). Cook posits that student teachers hold more positive attitudes toward including students with mild disabilities (e.g., students with learning disabilities) than students with severe disabilities. Furthermore, student teachers have indicated concern about teacher education programs and their effectiveness in preparing teachers to teach in inclusive settings. Some researchers have countered that exposing student teachers to students

with disabilities may positively influence their attitudes, perceptions, and beliefs (Campbell, Gilmore, & Cuskelly, 2003; Caroll et al., 2003; Ford, Pugach, & Otis-Wilborn, 2001; Forlin, 2003). These concerns and factors related to student teachers' attitudes toward inclusion are discussed in the section that follows.

Factors Related to Student Teachers' Attitudes Toward Inclusion

Researchers have identified factors that may influence student teachers' attitudes toward inclusion. These factors include the nature and severity of the disability, contact or experience with people with disabilities, preparation in teacher education programs, and student teachers' personal beliefs. These factors are discussed in light of available literature on student teachers' attitudes toward including students with disabilities in general education settings.

Nature and severity of the disability. Consistent with research on teachers' attitudes toward inclusion, the nature and severity of disabilities has been identified as a factor that may influence student teachers' attitudes toward including students with disabilities in general education settings (Avramidis et al., 2000b; Cook, 2002; Hastings & Oakford, 2003; McHatton & McCray, 2007). Student teachers express more concern about inclusion when the disability severely impacts the students' educational needs (Hastings & Oakford; McHatton & McCray).

Avramidis et al. (2000b) conducted a study about pre-service teachers' attitudes toward inclusion, their emotional reactions when dealing with children with special needs, and the effect of institutional and personal variables on their attitudes. Participants were 135 pre-service teachers at one university in the United Kingdom. A multi-component questionnaire was used to measure participants' attitudes toward inclusion. In addition, a Likert scale was used to measure the pre-service teachers' perceptions of their own skills, their confidence in meeting students' Individualized Educational Plan goals, and their preparation for inclusion. Results indicated that

while pre-service teachers appeared to hold positive attitudes toward the overall concept of inclusion, they were less supportive of the inclusion of students with emotional and behavioral disorders compared to other disabilities (e.g., autism, learning disabilities). Avramidis et al. recommended exposing pre-service teachers to comprehensive training in classroom management to meet the needs of students with emotional and behavior disorders. In addition, Avramidis and colleagues recommended exposing pre-service teachers to students with disabilities through field experiences in inclusive classrooms.

Likewise, Cook (2002) explored the effects of a teacher preparation program on pre-service general educators' attitudes and skills related to inclusion. One hundred eighty-one pre-service teachers from a large Midwestern university participated in the study. These participants were recruited from four seminar courses, each of which had special education content and inclusion curricula infused within the course. Some of the pre-service teachers were assigned to inclusive classrooms, but there was no requirement for the pre-service teachers to work with students with disabilities. Participants responded to a modified version of the *Opinions Relative to the Integration of Students with Disabilities Scale* (ORI) (Antonak & Larrivee, 1995). In addition, 136 participants provided written comments about their skills regarding teaching students with special needs. Qualitative and quantitative findings indicated that participants were in favor of inclusion and believed that inclusion is beneficial for students with disabilities. The pre-service teachers, however, noted that general education classrooms may not be the best settings for all students with disabilities, particularly those with severe disabilities. Furthermore, findings indicated that general educators may not be willing to accommodate students with disabilities in their classrooms as they may encounter classroom management problems.

In another study, Hastings and Oakford (2003) investigated pre-service teachers' attitudes toward the inclusion of students with emotional and behavior disorders, and students with intellectual disabilities, in general education settings. Ninety-three university students training to work with children ages 4-19 participated in the study. Thirty-one pre-service teachers had previous experience working with students with special needs, and 27 had social experience with people with special needs. Participants responded to a 24-item questionnaire that was designed to allow comparison between student teacher groups. Two versions of the questionnaire were distributed to the pre-service teachers. One version urged respondents to focus on intellectual disabilities; the second version asked them to focus on children with emotional and behavior problems in inclusive settings. Results of the study indicated that pre-service teachers' attitudes were influenced by the nature of the disability of the included children. Pre-service teachers appeared to accept children with intellectual disabilities more easily than children with emotional and behavior problems. They reported significantly more negative attitudes toward including students with emotional and behavior disorders.

More recently, McHatton and McCray (2007) conducted a study about the perceptions of elementary and secondary education majors toward the inclusion of students with exceptionalities in their classrooms. Participants were 128 elementary education majors and 33 secondary education majors at one U.S. university. All participants were enrolled in an undergraduate course addressing the inclusion of students with disabilities in general education settings. The pre-service teachers responded to a 35-item survey consisting of Likert-scale items that were rated from 1 to 5 (1 = strongly disagree, 5 = strongly agree). The survey was administered before participants were exposed to any course content. Findings revealed that pre-service teachers were significantly less supportive of the inclusion of students with intellectual

disabilities, multiple disabilities, and emotional and behavioral disabilities compared to "milder" disability categories (e.g., learning disabilities).

In conclusion, research shows that pre-service teachers have positive attitudes toward students with disabilities, however, they are concerned about the nature and severity of students' disabilities. Students with mild disabilities are seen as more "suitable" for inclusion while students with emotional behavioral disorders are viewed as the most problematic group in relation to inclusion. Pre-service teachers noted that general education classrooms may not be the best environment for students with emotional behavioral disorders, intellectual disabilities, or multiple disabilities. These results suggest that pre-service teachers may need extensive training in meeting the needs of students with severe disabilities in inclusive settings.

Preparation in teacher education program. Teacher education programs have traditionally assigned responsibility for preparing pre-service teachers to work with students with special needs to special education programs, creating a divide between general education and special education (Frattura & Topinka, 2006). With the increasing number of students with disabilities included in general education classrooms, the role of the general education teacher has demanded an increased understanding of students with special needs. Consequently, teacher education programs are striving to prepare pre-service teachers to teach students with diverse abilities (Blanton & Pugach, 2009; Darling-Hammond & Baratz-Snowden, 2005; Pugach, 2005). Because researchers have found that coursework and field experience may impact teachers' attitudes toward inclusion (e.g., Campbell et al., 2003; Carroll, Forlin, & Jobling, 2003; Jung, 2007; Shade & Stewart, 2001), some teacher education programs have been restructured to include dual certification in general and special education (Blanton & Pugach). Researchers have found that coursework and field experience in special education impact pre-service teachers'

attitudes toward inclusion (Campbell, Gilmore, & Cuskelly, 2003; Carroll et al.; Jobling & Moni, 2004; Jung; Martinez, 2003; McHatton & McCray, 2007; Romi & Leyster, 2006; Shade & Stewart; Shippen et al., 2005; Taut & Purdie, 2000).

Shade and Stewart (2001) examined the attitudes of special and general education pre-service teachers toward students with disabilities and pre-service teachers' confidence in working with students with disabilities in general education settings. Participants were 72 special education and 122 general education pre-service teachers enrolled in a special education course. Students responded to a survey prior to and following completion of the course. Results indicated that participants' attitudes improved following the 30-hour introduction to special education course. Shade and Stewart concluded that one course may positively change pre-service teachers' attitudes toward the inclusion of students with disabilities. These researchers recommended that all states mandate a special education course requirement in teacher education programs.

In another study, Shippen et al. (2005) compared pre-service teachers on two dichotomous scales (i.e., hostility/receptivity and anxiety/calmness) regarding serving students in general education classrooms. Three hundred thirteen (96 special education, 149 general education, 68 dual certification) pre-service teachers from 3 universities (two in the southeastern and one in the mid-Atlantic region of the US) completed the *Pre-service Inclusion Survey* (adapted from Soodak, Podell, & Lehman, 1998) during the first and last session of the *Survey on Exceptionalities* course. The survey consisted of a one-paragraph hypothetical scenario about serving students with disabilities (hearing impairments, learning disabilities, intellectual disabilities, behavioral disorders, or physical disabilities) in inclusive classrooms. The scenario was followed by a list of 17 adjectives that were rated on a 5-point Likert scale (1 = negative, 5 =

positive); the adjectives represent feelings toward the scenario. Findings revealed that general education pre-service teachers had the highest levels of anxiety about working with students with disabilities in general education settings compared to special education and dual certification pre-service teachers.

Similarly, Campbell et al. (2003) investigated the influence of one course, focusing on raising awareness of Down syndrome, on pre-service teachers' attitudes toward this disability and disabilities in general. Participants in this study were 274 early childhood, elementary, and secondary education pre-service teachers in one Australian university. Pre-service teachers were assessed before and after formal instruction for a core unit on Human Development and Education. In addition to completing a questionnaire, participants were required to interview two members of the community about Down syndrome, and write a report based on the interview. In the last tutorial for the subject, and after completion of the report, students were asked to complete the same questionnaire for the second time. Findings revealed significant improvement in pre-service teachers' understanding of Down syndrome; stereotypes about children with Down syndrome were considerably reduced in their descriptions. Furthermore, results indicated a statistically significant difference between pre-service teachers' total score at the beginning and end of the semester in relation to educational, social, and emotional benefits of inclusion for children with Down syndrome. Overall, participants showed less sympathy, uncertainty, fear, and vulnerability and reported more coping abilities after the class. Findings of this study reinforced the influence of coursework on pre-service teachers' attitudes, but Campbell and colleagues noted that the most important component of this course was fieldwork.

In attempting to explore the effect of fieldwork on pre-service teachers' attitudes, Jobling and Moni (2004) investigated pre-service teachers' knowledge and understanding about working

with students with diverse needs in inclusive classrooms. Participants in this study were 13 pre-service teachers in their professional year. The study was undertaken in two phases: (a) preliminary investigations and (b) observations and mini teaching projects. The researchers conducted focus group interviews and examined work samples and artifacts that included reflective journals, lesson plans, and final evaluation reflections. Findings revealed that the pre-service teachers continued to feel unprepared for the challenges of teaching students with disabilities even after completing introductory coursework in special education. Nevertheless, after field work in inclusive classrooms, pre-service teachers reported more positive feelings about the inclusion of students with disabilities in general education classrooms. Pre-service teachers also reported increases in their ability to make necessary instructional and material adaptations and in their overall knowledge about interacting with students with disabilities.

Similar findings were reported by Romi and Leyser (2006) in their study of 1,155 Israeli pre-service teachers enrolled in 11 different colleges. Participants completed the *ORI* (Antonak & Larrivee, 1995) that included 30 items, rated on a five-point Likert scale, and the *Teacher Self-efficacy Scale* (Rich, Lev, & Fischer, 1996). Results indicated that special education pre-service teachers held more positive attitudes toward inclusion than their counterparts in general education. Special education pre-service teachers also scored higher on self-efficacy measures, indicating they were more confident to work in inclusive settings than general education pre-service teachers.

Some researchers did not find changes in pre-service teachers' attitudes toward inclusion following the completion of university lectures and tutorials in special education. For instance, Taut and Purdie (2000) explored student teachers' attitudes toward people with disabilities and the interaction of a range of personal characteristics (e.g., gender, age, previous contact with

people with disabilities) with these attitudes. Pre-service students at a large Australian university took part in the study (n = 1,626). Students were enrolled in either a Bachelor of Education degree (4-year program) or a Postgraduate Diploma in Education (1-year program), and were studying early childhood, primary, secondary, or adult teacher education. Although there were no compulsory or core special education courses offered, the pre-service teachers attended several lectures and tutorials about students with disabilities in the final semester of their fourth year. The researchers administered the *Interaction with Disabled Persons* questionnaire (Gething, 1994), consisting of 20 items measured on a 6-point Likert scale (1 = I agree very much to 6 = I disagree very much). Higher scores on this questionnaire indicated greater discomfort when socially interacting with people with disabilities. Data were collected at the beginning of the academic year from all pre-service teachers and at the completion of the postgraduate course in the same year. Minimal significant differences (*eta squared* less than .02) were found for sympathy and embarrassment between beginning and end-of-year scores for postgraduate students. Because of these subtle findings, Taut and Purdie concluded that the one-semester lectures and tutorials may not have been sufficient to positively influence pre-service teachers' attitudes.

Likewise, Martinez (2003) investigated the effectiveness of an introductory special education course on pre-service teachers' attitudes toward inclusion, their sense of efficacy, and their knowledge about adapting instruction for children with disabilities. Twenty-three post-baccalaureate/Master's certification general education teachers and teacher candidates enrolled in the early childhood education program at a large, urban university in southwestern region of the US participated in this study. Participants were 23 students in a required graduate course (*Adapting Instruction for Children with Disabilities*) for all master's and doctoral students in the

early childhood program. The course included four core activities: (a) readings and discussion, (b) field-based experiences, (c) assignments in adapting instruction and developing accommodations for individual students, and (d) classmate interviews. Study participants responded to the *ORI* (Antonak & Larrivee, 1995) and the *Teachers' Sense of Efficacy Scale* (Tschannen-Moran & Woolfolk Hoy, 2001). In addition, semi-structured interviews lasting approximately 40 minutes were conducted with each student before and after the course. The semi-structured interview questions were adapted from Brownlee and Carrington (2000). Pre-course interviews included questions such as: (a) tell me about your experiences with people with disabilities and (b) what do you expect to learn from this class? Post-course interviews included items such as (a) what have you learned from this class? and (b) how did the interview process influence you?

A review of post-course narratives revealed generally positive effects of the course on attitudes toward inclusion and the students' perceptions of their sense of competence to be effective teachers in inclusive classrooms. Results from the *ORI* revealed no effects on the students' attitudes toward inclusion or their perceptions of teaching competence. Findings from the interviews indicated that the majority of students recognized the role of instructional adaptation and making instructional recommendations for students with disabilities. The students also reported high teaching efficacy (i.e., confidence in their ability to teach) based on their recognition of the role of general education teachers in inclusive classrooms. More importantly, most student teachers noted the importance of making significant changes to general education classroom procedures as necessary for the success of inclusion.

More recently, Jung (2007) investigated pre-service teacher candidates' attitudes and confidence levels in working with students with special needs. Participants in this study were 68

first year students enrolled in an *Introduction to Teaching in a Diverse Society* course and 57 student teachers. Participants responded to the *ORI* (Antonak & Larrivee, 1995). Responses from the two groups of pre-service teachers were compared based on four factors (i.e., benefits of inclusion, inclusive classroom management, ability to teach students with disabilities, and special versus inclusive classrooms). No statistically significant differences were found between first year students and student teachers on benefits of inclusion, inclusive classroom management, and ability to teach students with disabilities factors. Noteworthy is the fact that first year pre-service teachers rated themselves higher than student teachers on these three factors. Statistically significant differences were found on the special versus inclusive education factor with first year students rating themselves higher than student teachers.

In conclusion, the reviewed studies indicate that the effects of coursework on pre-service teachers' attitudes are mixed. While some researchers have found that the completion of one course positively impacted pre-service teachers' attitudes toward inclusion, other researchers have lamented that one year of special education coursework may not be enough to influence pre-service teachers' attitudes. Field work was identified as positively influencing pre-service teachers' attitudes toward inclusion. Pre-service teachers who did not have positive attitudes after completing coursework in special education reported positive attitudes when the course was coupled with field work. Research by Jung (2007) indicated that first year pre-service teachers held more positive attitudes toward inclusion than their counterparts who were engaged in student teaching. A plausible explanation for the difference in attitudes may be that the first year participants were mostly general education pre-service teachers who may not have been familiar with the disability categories. The students may have responded to surveys without having much knowledge about students with disabilities and their future responsibilities as teachers in

inclusive settings. Or possibly, as recent high school graduates, first year participants might have been more aware of their own school experiences with inclusive education and may have had greater familiarity with disabilities.

Contact or experience with people with disabilities

Contact or experience with people with disabilities appears to be an influencing factor in the development of pre-service teacher attitudes. A number of researchers have studied the role of previous contact or experience with people with disabilities in an educational or non-educational context (Bishop & Jones, 2002; Brownlee & Carrrington, 2000; Lambe & Bones, 2006; Romi & Leyser, 2006; Sharma, Forlin, Loreman, & Earle, 2006; Yellin et al., 2003). In one study, Romi and Leyser explored the role of informal experiences, such as experiences at camps or in school on teacher attitudes toward the inclusion of students with disabilities in general education settings. Their findings suggested that pre-service teachers with more experience interacting with students with disabilities had more positive attitudes than teachers with little or no experience. These findings were based on pre-service teachers' self-reports of their experiences. Taut and Prudie (2000) reported similar findings; participants who had more frequent contact with people with disabilities were less sympathetic, less vulnerable, and less embarrassed about interacting with people with disabilities.

Yellin et al. (2003) evaluated the impact of an inclusionary field-based experience on the attitudes of pre-service undergraduate elementary education majors toward children with disabilities. Fifty-five pre-service teachers who were enrolled in three sections of one elementary methods course that was taught in two formats: a traditional format taught at the university and a field-based format taught at a local school site participated in the study. Pre-service teachers in the school site observed elementary teachers 3 days a week, worked with students with

disabilities, and attended content area lectures at the site. At the end of the semester, these students had spent 300 hours at the site prior to student teaching. All three groups of students (2 sections at the university, 1 section at the site) were administered a 25-item attitude survey, the *ORI* (Antonak & Larrivee, 1995).

Interestingly, results from this study indicated no statistically significant differences between the groups. Pre-service teachers held positive attitudes toward students with disabilities regardless of whether they participated in the traditional format at the university or in the field-based format at the school site. The researchers concluded that attitudes may not necessarily change based on exposure to students with disabilities. A contributing factor to these findings may have been the limited time spent working with students with disabilities (i.e., the pre-service teachers' involvement was spent predominantly in observation). In addition, the duration of one semester for the "intervention" may not have been enough time to warrant significant attitudinal change.

Brownlee and Carrington (2000) investigated student teachers' attitudes toward individuals with disabilities by providing the students with sustained contact with a teaching assistant who had a severe physical disability, cerebral palsy. The study was designed to encourage pre-service teacher education students to reflect on, and possibly reconstruct their beliefs about people with disabilities and develop knowledge about disabilities. Participants in the study were 11 pre-service teachers who were in the third year of a 4-year program leading to a Bachelor of Education at a large university in Australia. These students were chosen because they had very little exposure to special education topics yet they would be required, when teaching, to develop inclusive classroom practices. As part of the requirements for the Bachelor of Education program, students completed a core educational psychology unit. Topics in the unit

included theories of learning, motivation, meta-cognition and self-regulated learning, classroom management, creativity and problem solving, and differentiated instruction. Each week students were engaged in a one-hour lecture followed by a two-hour tutorial session with the teaching assistant. Students were asked to relate the unit content to special education issues. Data were gathered through in-depth interviewing described as conversation that focuses on informants' perceptions of self, life, and experience, which is expressed in the informants' own words (Minichiello, Aroni, Timewell, & Alexander, 1995). Participants were interviewed before meeting the teaching assistant (interview 1), and 8 of the 11 participants were interviewed again during the last week of the semester (interview 2). The semi-structured interviews lasted 20 to 40 minutes.

Findings suggested that pre-service teachers' perceptions about the teaching assistant were positively affected by their interactions with her. The pre-service teachers described the interactions as generally positive; they reported that the interactions provided them with first-hand knowledge of disabilities. Overall, the interactions with the teaching assistant were valuable because pre-service teachers gained direct experiences interacting with a person with a disability. The experiences not only increased their comfort level but also helped the pre-service teachers gain knowledge about people with disabilities in general. They reported learning to look beyond the disability of the person. Commenting about the effectiveness of the teacher education course in preparing them for inclusive education, the pre-service teachers reported that the Bachelor of Education program did not adequately prepare them for teaching students with a range of disabilities. The pre-service teachers believed that more practical experiences with individuals with disabilities would better prepare them for inclusive education.

Sharma, Forlin, Loreman, and Earle (2006) conducted a cross-cultural comparative study to investigate pre-teachers' attitudes, concerns, and sentiments about inclusive education and their degree of comfort interacting with people with disabilities. Participants were 1,060 pre-service teachers enrolled in undergraduate teacher preparation programs in Australia, Canada, Hong Kong, and Singapore. A four-part questionnaire was used to collect data. The four parts of the questionnaire were: (a) demographic information, (b) *Attitudes towards Inclusive Education Scale* (Wilczenski, 1992), (c) *Interaction with Disabled Persons Scale* (Gething, 1994), and (d) *Concerns about Inclusive Education Scale* (Sharma & Desai, 2002). The questionnaire was administered to pre-service teachers during the first week of a course on teaching children with special needs.

Results of this study revealed that in general, pre-service teachers held positive attitudes toward people with disabilities. Pre-service teachers who reported having previous contact with people with disabilities had more positive attitudes toward inclusion than those without previous contact. Furthermore, pre-service teachers from Eastern style institutions (Hong Kong and Singapore) had significantly less positive attitudes toward individuals with disabilities than their counterparts from Western and Western style institutions (Australia and Canada). A possible explanation is that in Australia and Canada, inclusive education had been implemented for at least two decades prior to conducting this study and pre-service teachers from these countries may have received their education in inclusive settings, compared to pre-service teachers from Hong Kong and Singapore where inclusion is a relatively new concept and cultural beliefs may influence the pre-service teachers' attitudes about children with disabilities. According to demographic data, Canadian pre-service teachers had contact with individuals with disabilities much more often than their counterparts in Australia, Hong Kong, and Singapore. Prior

experience with individuals with disabilities in inclusive settings may have positively impacted the Australian and Canadian pre-service teachers' attitudes toward inclusion. Research has shown that contact with persons with disabilities tends to reduce discomfort (Gething et al., 1997). While levels of discomfort when interacting with people with disabilities were high among pre-service teachers in Hong Kong and Australia, pre-service teachers from Singapore exhibited even higher levels of discomfort.

Enabling pre-service teachers to have contact and experience with students with disabilities in a positive, supportive, and reflective way may ensure that they understand how to implement inclusion (Bishop & Jones, 2002). In their study, Bishop and Jones created a simulated inclusive environment, using structured workshop activities with children with disabilities (two with profound and multiple learning disabilities, one with challenging behavior, five with complex learning disabilities with additional medical, physical, or perceptual problems) to provide training to pre-service teachers and prepare them to meet the diverse needs of all children in the classroom. The workshop experience was planned to enable the pre-service teachers to broaden their understanding and awareness of children with severe and profound learning disabilities. Ninety students participated in a series of eight workshops. The pre-service teachers were interviewed before and after the workshops. Findings revealed that pre-service teachers' attitudes toward children with disabilities positively changed as a result of the workshops.

In summary, research has revealed that pre-service teachers who had contact with people with disabilities show more favorable attitudes toward inclusion and people with special needs in general. This contact appears to be effective whether it happened before, after, or as part of a course. Mere contact with students with disabilities, however, may not be associated with the

formation of more favorable attitudes. The structure of the contact appears to have an effect on attitude change. Pre-service teachers who participated in structured contacts with people with disabilities in teacher education programs reported more positive attitudes than pre-service teachers who had unstructured contact with individuals with disabilities.

Conclusion

This literature review revealed the importance of examining student teachers' attitudes toward the inclusion of students with disabilities in general education classrooms. Teachers' attitudes are a critical factor that can impact the implementation of inclusive education. According to Forlin (1998), decisions to include or exclude students with disabilities in general education settings depend on the willingness of teachers to accept and support these students in their classrooms. Consequently, researchers have stressed the importance of understanding teachers' attitudes and beliefs toward inclusion (Avramidis et al., 2000; Forlin et al., 1996; Hasazi, Johnson, Liggett, & Schattman, 1994; Smith, 2000). Assessing teachers' attitudes is the first phase in a sequence of actions geared toward educating students with disabilities in inclusive settings.

Three themes appear to describe pre-service teachers' attitudes: (a) pre-service teachers are generally positive about inclusion, (b) many pre-service teachers are apprehensive about including students with severe disabilities, and (c) pre-service teachers have little confidence in their preparation for inclusion. These attitudes about inclusion are influenced by many factors including type and severity of the disability, contact or experience with people with disabilities, and number of special education courses taken. In most studies, pre-service teachers were influenced to change their previously held views about inclusion and people with disabilities. For instance, contact with students with disabilities through structured activities positively influences

pre-service teachers' attitudes (Brownlee & Carrington, 2000; Sharma et al., 2006; Tait & Purdie, 2000).

To the contrary, some researchers reported that pre-service teachers' attitudes toward including students with disabilities were not impacted by the number of special education courses completed. Pre-service teachers who completed one university course (Taut & Purdie, 2000), a course combined with field experience (Martinez, 2003), or exclusively field-based experiences (Yellin et al., 2003) reported little or no change in their attitudes toward inclusion.

Furthermore, pre-service teachers do not appear to favor including students with more challenging disabilities (e.g., emotional behavior disorders, intellectual disabilities) in general education settings (Avramidis et al., 2000b; Cook, 2002; Hastings & Oakford, 2003). Researchers attributed this finding to pre-service teachers' lack of classroom management skills. Also, pre-service training was identified as a critical factor in helping future teachers accept and accommodate students with disabilities in general education classrooms.

Negative attitudes have been found to affect student outcomes in inclusive environments (Giangreco et al., 1993; Larrivee & Cook, 1979; Reiter et al., 1998). Teachers with negative attitudes make fewer adaptations (Buell et al., 1999) and use less evidence-based instructional strategies to facilitate the inclusion of students with disabilities. In addition, Kabzems and Chimedza (2002) noted that negative attitudes toward people with disabilities are influenced by local history and culture. Considering the existence of cultural beliefs specific to Zambia and Southern Africa, it is critical to examine student teachers' attitudes toward including students with disabilities in general education classrooms. Cultural beliefs, such as believing that individuals with disabilities are not part of a community (Abosi, 2000; Ingstad, 1997; Kabzems & Chimedza), may influence Zambian student teachers' perceptions of inclusion.

Through policy development the Zambian government is steadily increasing the number of students with disabilities included in general education environments. Nevertheless, a number of researchers and policy analysts have long argued that "it would be naïve to assume that legal mandates will ensure the development and implementation of appropriate inclusive programs. Unless school personnel directly involved in the implementation have positive attitudes to the process, any attempt to integrate students with disabilities may fail" (Sharma, Moore, & Sonawane, 2009, p. 321). Although the Zambian government has adopted policies to support inclusive education, little if anything, is known about the attitudes of students in teacher education programs, a group that will increasingly take responsibility for the implementation of inclusive educational policies within the Zambian education system. Thus, investigating the current state of education students' attitudes toward inclusion may provide direction for personnel preparation, which will then ultimately impact the inclusion of students with disabilities in general education classrooms in Zambia and other countries in Southern Africa facing similar challenges.

Chapter 3

Methods

This study examining university students' attitudes toward including students with disabilities in general education classrooms in Zambia, was conducted in Spring 2011in Lusaka, Zambia. Data collection occurred over a 3 week period at the University of Zambia. The researcher traveled to Zambia to gather all survey data.

Participants

Participants in this study were enrolled fulltime in the School of Education for the 2010-2011 academic year. The students belonged to four of the seven departments in the School of Education (i.e., Educational Psychology, Sociology, and Special Education; Language and Social Sciences; Mathematics and Science Education; Primary Education). These departments were targeted because they prepare primary, secondary, and special education teachers. Surveys were distributed to 497 undergraduate students enrolled in the 4-year teacher preparation program in the School of Education at the University of Zambia (UNZA). Nearly all students (99%, n = 495) who attended the classes in which data were collected participated in the study. With the help of several local contacts, the researcher targeted sections of compulsory courses at each level (1st, 2nd, 3rd, and 4th year). For example, all first year students in all four majors (i.e., Language and Social Sciences, Educational Psychology, Sociology and Special Education, Mathematics and Science Education, and Primary Education) were enrolled in *EPS 152- Special Educational Needs* and *RS-Religious Studies*. Compulsory courses at each level included: *EPS 252- Teaching Children with Specific Learning Disabilities* and *CVE-Civic Education* (second year), *EPS 352-Classroom Management and Organization* and *CVE-Civic Education* (third year), and *EAP 912-*

Educational Administration and Management and *EPS 452-Identification Assessment, and Intervention in Special Education* (fourth year).

While survey participants were given the option of omitting any question that they did not feel comfortable answering, a decision was made to only include completed surveys (i.e., surveys with no missing data on the Likert scale questions) in the data analysis. Thus, data from 484 completed questionnaires were included in the analysis yielding a 97% response rate. More than half the participants were female (n = 269, 56%). About half the participants fell in the age group range of 21 to 30 (n = 247, 51%). The highest number of participants were in their third year of school (n = 167, 35%), with about half the total number of participants (n = 249, 52%) majoring in special education. Most participants had contact with persons with disabilities (n = 434, 90%). Participants' demographic characteristics are summarized in Table 1.

Instrument

Participants completed the modified *Pre-service Teachers' Attitudes toward Inclusion Questionnaire* (El-Ashry, 2009, see Appendix A). This instrument was developed following an extensive review of instruments and literature examining teachers' and pre-service teachers' beliefs and attitudes toward inclusion. First, El-Ashry reviewed literature addressing pre-service and in-service teachers' attitudes toward inclusion (e.g., Avramidis & Norwich, 2002; Scruggs & Mastropieri, 1996). Then, El-Ashry reviewed measures of beliefs and attitudes toward inclusion that have been used in previous studies with teachers, pre-service teachers, parents, and practitioners (i.e., Antonak & Larrivee, 1995; McHatton & McCray, 2007; McLeskey, Waldron, So, Swanson, & Loveland, 2001; Stoiber, Gettinger, & Goetz, 1998). Most of these instruments assessed attitudes using a 5- or 6-point Likert scale. Both positive and negative wording of questionnaire items was used to avoid bias. Unlike previously developed instruments, El-Ashry

included open-ended questions to allow study participants an opportunity to elaborate on their perspectives toward inclusion. El-Ashry's final questionnaire consisted of seven open-ended and 33 items that were to be rated on a 5-point Likert scale.

The modified *Pre-service Teachers' Attitudes toward Inclusion Questionnaire* consists of three sections. Section I includes 33 statements focusing on participants' attitudes toward inclusion. The items in the first section focus on study participants' beliefs about (a) the benefits of inclusion, (b) inclusive classroom management, and (c) special versus inclusive general education placements (Antonak & Larrivee, 1995; McLeskey et al., 2001; Stoiber et al., 1998), and (d) teaching students with specific types of disabilities (McHatton & McCray, 2007). Respondents ranked the statements on a 4-point Likert scale (1 = *strongly disagree*, 2 = *disagree*, 3 = *agree*, 4 = *strongly agree*). Scores range from 33 to 132 with a higher score representing more favorable attitudes toward the inclusion of students with disabilities in general education classrooms.

In Section II, study participants responded to three different items. First, student teachers identified descriptors and categories of disability that are most essential to their definition of inclusion. Study participants reflected on their personal definition of inclusion and indicated the types of disability included in that definition. Then, participants identified components of their teacher training program that have had the greatest influence on their attitudes toward inclusion. These items were adapted from Ryndak, Jackson, and Billingsley's (1999, 2000) study in which they examined common terms or phrases used to define inclusion. In the last part of Section II, participants responded to three questions about perceived benefits of inclusion and the resources needed to successfully include students with disabilities in general education settings. Responses to these questions were intended to provide insight into data from the first section of the

questionnaire. Section III included seven items focusing on participants' demographic information.

Conceptual Analysis

The modified *Pre-service Teachers' Attitudes Toward Inclusion Questionnaire* was used in this study because of its cultural relevance to the Zambian context. The original instrument was developed and has been used in educational and social contexts in Africa (El-Ashry, 2009). In addition, the inclusion of open-ended questions provided an opportunity for respondents to elaborate on their perceptions about inclusive education. Two faculty members and eight doctoral students who were enrolled in a seminar at the University of Illinois reviewed the instrument and provided feedback (see Table 2 for recommended revisions for terms and expressions that needed clarification). The Likert scale was modified from the original 5 points to 4 points, for an even number of responses forces respondents to decide whether they lean more toward the "agree" or "disagree" end of the scale for each item (Brace, 2004).

Considering that Zambia has been greatly influenced by British culture, particularly in the education system, the instrument also needed some modifications in spelling of the following words to suit British orthography: (a) behavior to "behaviour," (b) monopolize to "monopolise," and (c) neighbors to "neighbours."

Following these changes, four dissertation committee members at the University of Illinois reviewed the revised instrument for content and clarity. The faculty members recommended that a definition for inclusion be provided on the first page and at the top of every page containing Likert scale statements. Furthermore, a recommendation to include questions about participants' definition of inclusion was made. The researcher revised Section II to include all recommended changes.

Structural Analyses

Following survey administration, a series of quantitative analyses were conducted on the questionnaire to examine the structural coherence of the questionnaire. First, descriptive statistics (e.g., means, standard deviations, and frequencies) were calculated for each item. The following sections describe results of the reliability, correlational and factor analyses that were conducted to examine the structure of the questionnaire. Only the questionnaire items classified into *Benefits of inclusion* (item label B), *Inclusive classroom management* (item label M), *Ability to teach students with disabilities* (item label A), and *Special versus inclusive general education placements* (item label I) were used for these analyses (n=28, El-Ashry, 2009). Omitted from this analysis were five items that required teachers to rate their agreement with statements concerning the success of teaching students with specific disabilities. These disability items are distinct from each other and were not intended to be scaled items (see Table 3 for a list of items and item labels).

Reliability Analysis Results. Coefficient alpha was used to determine the homogeneity within the four sub-scales of the questionnaire. Coefficient alpha was calculated for each sub-scale and the questionnaire as a whole to estimate construct coherence. Alpha values were calculated for each sub-scale that the questionnaire was intended to measure. Initial reliability analyses suggested that certain items did not contribute to the reliability of the *Benefits of inclusion* or *Inclusive classroom management* sub-scales as indicated by item-total correlations and alpha values. As an illustration, the initial reliability analysis for the *Benefits of inclusion* sub-scale is presented in Table 4. The initial reliability was 0.669. If item B9 was removed from the *Benefits of inclusion* sub-scale, the alpha value increased to 0.714 and exceeded the research standard. Reliability analysis for each sub-scale is presented in Table 5. Determining the

appropriate scales using coefficient reliability is an iterative process. After completing the process of removing and adding items to obtain the most robust alpha coefficient estimates, the final reliability analyses for *Benefits of inclusion* and *Inclusive classroom management* are included in Table 6. Deleted items are noted.

For the sub-scales *Ability to teach students with disabilities* and *Special versus inclusive general education,* reliability estimates never exceeded 0.48 indicating that study participants did not respond in expected ways. As a result, correlational analyses were used to explore the relationship among the dimensions to determine if items within these two sub-scales might fit better elsewhere. Then, exploratory factor analysis (EFA) was used determine the underlying structure of the survey. These results were then compared to the results of the initial reliability analysis.

Correlational Analysis Results. Correlational analyses were used to explore the relationships among the sub-scales. Moderate inter-item correlations (r = 0.30-0.60) were present within sub-scales, however, items did not correlate with other items outside the subscale. Moderate to strong positive item-total correlations (r = 0.30 to 0.80) were observed between items and their respective total scales (e.g., Item B1 with *Benefits of inclusion* total, $r = 0.566$). Further, some moderate item-total correlations were observed between items and other sub-scales. For example, Items B1 and B5 correlate with *Inclusive classroom management* total. Unfortunately, the items that did not perform well in the reliability analysis did not correlate outside their sub-scale. Finally, moderate sub-scale-total correlations were observed between *Benefits of inclusion, Inclusive classroom management, Special versus inclusive general education* and *Inclusive classroom management*, indicating that respondents who shared similar views in one sub-scale also shared similar views on the other sub-scale. These correlational

analyses indicate coherence between items within a scale and provide some evidence that the items are measuring singular rather than multiple dimensions. Further, while the correlational analyses do not provide any conclusive information about those scales that performed poorly in the reliability analysis, the absence of correlations of those items within their respective dimensions provides evidence that these items are measuring something different altogether.

Factor Analysis Results. Below is a description of the multi-step process employed to examine the questionnaire structure. Interrelationships among the questionnaire items were examined by conducting EFA. Reliability analysis results in the previous section indicated that the items of *Pre-service Teachers' Attitudes toward Inclusion Questionnaire* grouped reasonably well for *Benefits of inclusion* and *Inclusive classroom management.* Correlational analyses revealed moderate inter-item correlations within those two sub-scales and no evidence of items belonging to another sub-scale other than their own. In order to further explore the possible underlying relationships within and among the four sub-scales, EFA was conducted first by allowing factors to naturally load with all questionnaire items.

Preliminary EFA, without forcing factors, revealed that only three underlying factors were present in the questionnaire (see Table 7). The preliminary EFA confirmed our reliability results for *Inclusive classroom management* but suggested that items B4 and B5 should be removed from the *Benefits of inclusion* sub-scale (loading was less than 0.4). The analysis also confirmed that *Ability to teach students with disabilities* and *Special versus inclusive general education* were not tenable sub-scales by themselves but did suggest that a third possible factor existed (i.e., among items A1, A2, A4, and I1) from *Ability to teach students with disabilities* and *Special versus inclusive general education* sub-scales.

Since there were only three factors extracted with Eigen values greater than 1, factor analysis was run again this time forcing three factors. The results of this analysis also suggested that items B4 and B5 should be excluded from the *Benefits of inclusion* sub-scale. Analysis also indicated that item I3 should be added to the *Inclusive classroom management* sub-scale. Furthermore, items A2, A4, I1, and I2 may represent an underlying construct which differs from the first factor analysis. EFA was performed once more, this time removing all items with loadings under 0.4 (e.g., B4 and B5). This factor analysis extracted a third factor comprised of items A1, A2, A4 and I1. Although the EFA suggested that B4 and B5 should be removed from the *Benefits of inclusion* sub-scale, a comparison of the model with and without the items revealed there was no improvement in model fit that warranted removal of both items especially when, conceptually, it made sense to include them in the scale and their presence was confirmed in the reliability analysis.

Additionally, item I3 remained part of the *Inclusive classroom management* sub-scale since the content of the item was reasonably linked to the construct. Item I2 was removed and a final factor analysis was run. The factor loadings for the final EFA are presented in Table 8. The content of the items in these sub-scales are: *Benefits of inclusion* (B1, B2, B3, B4, B5, B6, B7, B8), *Inclusive classroom management* (M1, M2, M4, M5, M7, M8), and *Special versus inclusive general education* (A1, A2, A4, I1). Finally, Table 9 shows the inter-factor correlations for the three factor solution. All factors share positive correlations with each other.

Procedures

Approval from the Institutional Review Board (IRB) at the University of Illinois at Urbana-Champaign and the Humanities and Social Science Research Ethics Committee at the University of Zambia was obtained in December 2010 and February 2011, respectively (see

Appendices C and D). The researcher traveled to Zambia and worked out the logistics for distributing the questionnaire with two colleagues at the University of Zambia. The paper and pencil questionnaire was administered to university students in large groups during their university courses. The researcher targeted eight class sessions that included all students at each level. At the end of each designated lecture session, respective lecturers introduced the researcher to the students and thereafter left the classroom so the researcher could explain the procedures and collect completed questionnaires.

The researcher solicited the students' participation by introducing herself and explaining the purpose of the study. Additional information about the study was described to the students in a one-page consent letter (see Appendix E) that included the students' rights for participating in the study. Students were offered the option to participate in the study, by signing the consent letter and completing the questionnaire, or leaving the room. Participants were informed that their participation was voluntary and that their responses to the questionnaire would be anonymous. The researcher distributed a questionnaire and a pen to each participant for completion. Completion of the questionnaire lasted approximately 30 minutes, after which participants placed the completed questionnaires in a box that was located in front of the classroom. As the students completed the questionnaires, the researcher sat off to the side in the front of the room reading a book. Completed questionnaires were collected by the researcher. As an incentive, participants kept the pens. Class sessions (course) and number of participants for each class level (1st, 2nd, 3rd, and 4th year) from whom data were collected are presented in Table 10.

Data Quality. The data gathered for this study included a large sample size with minimal missing values, indicating that respondents rarely omitted responses. There was no evidence of

systematic missing data to indicate purposeful omission of responses by respondents. Item responses had meaningful variation evidenced by item frequencies, means, standard deviations, and reverse coded items that "worked" in the scales, which suggests that participants were not responding in socially desirable ways but provided thoughtful and unique answers to each item. One question asking participants to select the 5 best terms from a pool of twenty items to define inclusion was not effective in finding shared definitions among study participants. Because the factor analysis did not work the same for the Zambian study as it did for El-Ashry's (2009) study, there was a concern that Zambian participants may not have interpreted the questionnaire the way it was intended. Participants provided many comments in response to the open-ended questions, an indication of their willingness to share their thoughts and ideas.

Data Analysis

After collecting the completed questionnaires, the researcher entered the data into SPSS 17.0 for analysis. Preliminary analysis included examining the data for accuracy of data entry. The researcher trained one University of Illinois special education graduate student in data entry procedures. Then, the researcher selected every fourth survey (n = 120, 25%) for the graduate student to compare the raw data with the entries made by the researcher. Accuracy of the total data entry was 99.8% with fifteen items incorrectly entered out of 9,120 items.

Descriptive statistics were used to explore and compare the attitudes of student teachers who participated in the study. Independent groups *t*-tests were conducted to examine differences in students' attitudes as a function of gender (male and female) and current or previous contact with persons with disabilities (contact and no contact). Furthermore, ANOVAs were conducted to examine the relationships between a demographic variable (independent variable) and a sub-scale (i.e., *Benefits of inclusion*, *Inclusive classroom management*, *Special versus inclusive*

education) and disability category (dependent variable). These analyses provided insight on whether students' attitudes differed based on each demographic variable. To analyze qualitative data obtained from the second part of the questionnaire (questions 4-7) content analysis procedures described by Bogdan and Bilken (2003) were followed. Through the open-ended questions, I sought to describe tenets that lead to successful inclusive education.

My perception of inclusive education has been shaped by my experience working as a special educator in inclusive settings. I believe that this experience enhanced my awareness, knowledge, and sensitivity to the various benefits and challenges of inclusive education. To ensure objectivity in viewing, understanding, and interpreting data from open-ended questions, I grounded myself in the features of qualitative research advanced by Bogdan and Bilken: describing data, using inductive data analysis, and making meaning of the data. Categories describing participants' perspectives toward inclusion were determined and data were grouped into specific categories to allow for analysis and interpretation.

All responses to the open-ended questions were included in the qualitative analysis. One faculty member (advisor) and a graduate student familiar with qualitative research helped with data analysis. The researcher, the advisor, and the graduate student independently read all typed survey responses to become familiar with the overall nature of the responses. As the research team read the responses, they highlighted phrases and sentences that captured the essence of the participants' answers and generated labels to represent key concepts. Then, the team members independently grouped all repeated responses to gain a sense of the relative importance of the issues identified by Zambian students. They independently defined tentative categories for coding responses by combining thoughts that seemed to address the same issue and wrote definitions that described the focus of the category.

Next, the research team met to discuss the initial wave of analysis, conducted a page-by-page comparison of their highlighting and agreed on broad categories that were used to independently code all open-ended responses. In the subsequent joint review of their independent analyses, they compared notes, negotiated discrepancies, identified gaps, and reached consensus on a streamlined set of categories. Finally, category integrity was established by having a graduate student who was not familiar with the data, code 30% of the data. Agreement for the categories was reached when the graduate student coded identical categories for the same data unit at 80% or higher for each open-ended question. The researcher computed inter-rater agreement by applying the formula: number of agreements/number of agreements + disagreements divided by 100 (Kazdin, 2001). Inter-rater reliability for each question was as follows: Question 4, benefits for students with disabilities (92%), question 4, no benefits for students with disabilities (85%), question 5, benefits for students without disabilities (81%), question 5, no benefits for students without disabilities (90), question 6 (97%), and question 7 (96%) (range 81 to 97). Data sources and data analyses procedures conducted by research question are presented in Table 11.

Chapter 4

Results

In this chapter, quantitative and qualitative results are presented with the key findings highlighted for each research question. First, results related to Zambian university students' attitudes toward inclusion are provided. Then, data on the relationships between participant demographics and attitudes toward inclusion are presented. Finally, qualitative findings focused on participants' perceived benefits and resources needed for successful inclusion are presented.

Attitudes Toward Inclusion

The first research question addressed participants' attitudes toward inclusion. Participants rated their level of agreement with 33 statements in Section I of the *Pre-Service Teachers' Attitudes Toward Inclusion Questionnaire*. Exploration of the distribution of data indicated contrasts in students' perceptions on inclusion. To highlight the contrasts and illustrate the lack of consensus across students (regardless of their characteristic), response categories were collapsed (i.e., *strongly agree* was collapsed with *agree* and *strongly disagree* was collapsed with *disagree*) (see Tables 12 and 13). Overall survey participants had positive attitudes toward the inclusion of students with disabilities. Ten out of 28 items were rated positively (70% or higher), while eight out of 28 items revealed participants' concerns about inclusion (70% or higher rating). Nearly 92% of survey participants agreed that inclusion promotes an understanding and acceptance of individual differences between students with and without special needs. Eighty-nine percent of survey participants felt that the behavior of students with special needs does not set a bad example for other students in the classroom. Eighty-five percent of survey respondents agreed that inclusion promotes social independence among students with special needs. Eighty-four percent of survey participants agreed that students with special needs

have a basic right to be educated in the general education classroom, and that inclusion promotes self-esteem among students with special needs. More than 82% of participants indicated that students with special needs are able to learn in general education classrooms. Nearly 82% of survey participants agreed that the inclusion of students with special needs is beneficial for students without disabilities. More than 74% of respondents agreed that students with special needs lose the stigma of being "different" or being "failures" when placed in general education classrooms. Nearly 74% of survey participants believed that students with special needs will make an adequate attempt to complete their assignments in inclusive classrooms. Seventy-one percent of respondents felt that students with special needs are not likely to create confusion in general education settings.

Results also highlighted participants' concerns about inclusion. Almost 91% of participants indicated that special education teachers should teach students with special needs, as opposed to general education teachers. More than 90% of the survey participants believed that the inclusion of students with special needs requires significant changes in general education classroom procedures. Nearly 87% of participants indicated that the behavior of students with special needs requires more attention from teachers than the behavior of students without disabilities, while more than 85% of participants believed that the inclusion of students with special needs necessitates retraining general classroom teachers. Particularly noteworthy is that nearly 84% of the participants felt that general education classroom teachers have insufficient training to teach students with special needs. About 75% of respondents felt that students with special needs can be best served outside the general education classrooms, while nearly 74% agreed that general education classroom teachers do not have the necessary skills to work with students with special needs. Almost 71% of survey participants felt that the placement of

students with special needs in special classrooms is beneficial to their social and emotional development. Descriptive statistics of the survey items are presented in Table 13.

Participants were asked to rate their perceived success of educating students in inclusive classrooms, based on five types of disabilities. Descriptive statistics indicated that 88% of survey participants expressed the most positive attitudes toward educating students with physical disabilities in general education classrooms (M = 3.30, SD = 0.83). On the other hand, 83% of survey participants rated educating students with intellectual disabilities in general education classrooms most negatively (M = 1.70, SD = 0.81) among the five disability categories. Participants' attitudes toward educating students with visual impairments in inclusive classrooms were nearly evenly split; fifty-two percent disagreed and 48% agreed that students with visual impairments should be educated in general education classrooms (M = 2.31, SD = 1.01). Participants' mean scores and standard deviations for each disability category are summarized in Table 14.

Participants were asked to reflect on the types of disabilities that applied to their definition of inclusion (see Table 15). Results indicated that physical disability was the most frequently chosen category (89%), followed by visual impairment (71%), and hearing impairment (61%). Severe intellectual disability was chosen least (20%); meaning that participants believed that students with physical disabilities can be included more successfully than students with severe intellectual disabilities.

To examine factors related to participants' attitudes toward inclusion, the following question was posed: How do demographic characteristics (e.g., age, gender, year in college, contact with a person with disability, major in college, and teaching experience) relate to Zambian general and special education student teachers' attitudes toward inclusive education?

Analysis of variance (ANOVA) and independent groups *t*-tests were used to investigate the relationship between demographic variables on participants' attitudes toward inclusion.

ANOVAs were conducted to examine the relationships between each independent variable (i.e., years of contact, frequency of contact, year in school, years teaching experience, age, major) and dependent variable (i.e., *Benefits of inclusion*, *Inclusive classroom management, Special versus inclusive general education,* and the five disability categories) at an alpha level of .05. Several statistically significant relationships were found between the participants' demographic variables and the dependent variables (see Table 16). Post hoc comparisons were conducted to evaluate Pairwise differences among the means using Fisher's Least Significant Difference (*LSD*) post-hoc test (see Tables 17-19).

Findings indicated that college major (e.g., special education, secondary education, primary education) was significantly related to five dependent variables for participants' attitudes toward inclusion: *Benefits of inclusion, F*(2, 480) = 9.80, $p < 0.001$, *Inclusive classroom management, F*(2, 480) = 8.97, $p < 0.001$, *Educating students with physical disabilities in general education classrooms, F*(2, 478) = 16.95, $p < 0.001$, *Educating students with visual impairments in general education classrooms, F*(2, 478) = 7.69, $p = 0.001$, and *Educating students with hearing impairments in general education classrooms*, *F*(2, 477) = 13.55, $p < 0.001$.

Post-hoc analysis revealed significant mean differences for *Benefits of inclusion* as a function of college major (see Table 17). Special education students showed significantly more positive attitudes toward the benefits of inclusion than students who were majoring in secondary education (*MD* = 0.21, $p = 0.00$). Mean differences also were observed for *Inclusive classroom management*. Students majoring in secondary education exhibited more positive attitudes than

primary education majors (*MD* = 0.43, *p* = 0.002). Not surprising, special education majors held more positive attitudes toward *Inclusive classroom management* than secondary education majors (*MD* = 0.17, *p* = 0.001). Additionally, significant mean differences were found in participants' attitudes toward educating students with specific disabilities in general education classrooms. Special education majors held more positive attitudes than did secondary education majors in terms of educating students with physical disabilities (*MD* = 0.43, *p* = 0.00), visual impairment (*MD* = 0.35, *p* = 0.00), and hearing impairment (*MD* = 0.42, *p* = 0.00).

Furthermore, participants' year in college (i.e., first year, second year, third year, fourth year) was significantly related to 3 dependent variables: *Benefits of inclusion*, $F(3, 479) = 12.48$, $p < 0.001$, *Educating students with visual impairments in general education classrooms*, $F(3, 477) = 3.45$, $p = 0.02$, and *Educating students with hearing impairments in general education classrooms*, $F(3, 476) = 3.51$, $p < 0.02$.

Post-hoc analyses also revealed significant mean differences for *Benefits of inclusion* as a function of year in college (see Table 18). First year participants showed significantly more positive attitudes toward the benefits of inclusion than participants who were in their second year of the teacher preparation program (*MD* = 0.28, *p* = 0.00) and fourth year students (*MD* = 0.22, *p* = 0.00). Third year students showed significantly more positive attitudes than second year students (*MD* = 0.31, *p* = 0.00), and third year students showed significantly more positive attitudes than fourth year students (*MD* = 0.25, *p* = 0.00).

Results for educating students with specific disabilities in general education classrooms revealed mean differences among participants in relation to their year in school. Mean differences for educating students with visual impairments in inclusive classrooms indicated that third year students held significantly more positive attitudes than second year (*MD* = 0.36, *p* =

0.00) and fourth year (*MD* = 0.27, *p* = 0.04) students. In regard to students with hearing impairments, first year students held significantly more positive attitudes than fourth year students (*MD* = 0.28, *p* = 0.03). Also, third year students held significantly more positive attitudes than second (*MD* = 0.25, *p* = 0.02) and fourth (*MD* = 0.30, *p* = 0.01) year students.

Age also was related to two dependent variables: *Inclusive classroom management, F*(3, 479) = 6.20, *p* < 0.001, and *Educating students with physical disabilities in general education classrooms, F*(3, 477) = 3.23, *p* = 0.02 (see Table 16). Post-hoc testing indicated statistically significant mean differences among survey participants as a function of age (see Table 19). For *Inclusive classroom management*, survey participants who were less than 20 years old exhibited significantly less positive attitudes than participants who reported being between the ages of 31 and 40 (*MD* = 0.21, *p* = 0.02) and participants who were more than 40 years old (*MD* = 0.20, *p* = 0.04). Survey participants between 21 and 30 years old held significantly less positive attitudes than their peers between 31 and 40 (*MD* = 0.22, *p* = 0.00) and those who reported their age as above 40 (*MD* = 0.21, *p* = 0.01). Participants between 31 and 40 years held significantly more positive attitudes toward educating students with physical disabilities in inclusive classrooms than participants who reported their age as between 21 and 30 (*MD* = 0.26, *p* = 0.01).

Finally, teaching experience was moderately related to the *Special versus inclusive general education* sub-scale (i.e., segregated versus inclusive education), *F*(3,208) = 2.67, *p* = 0.048. Post-hoc analysis revealed statistically significant differences between participants with more than 10 years teaching experience and participants with 2-5 (MD = 0.27, *p* = 0.03) and 6-10 (MD = 0.19, *p* = 0.03) years teaching experience. Participants with more than 10 years teaching experience exhibited less positive attitudes than participants with 2-5 and 6-10 years

teaching experience on the *Special versus inclusive general education* sub-scale. Results of ANOVA and Post-hoc testing for years teaching experience are presented in Tables 20 and 21.

T-tests revealed that male and female participants were significantly different in their attitudes toward including students with hearing impairments in general education classrooms, $t(479) = 2.27$, $p = 0.02$. Mean scores indicated that men ($M = 2.05$, $SD = 0.91$) exhibited more favorable attitudes toward including students with hearing impairments than women ($M = 1.87$, $SD = 0.87$). Significant differences also were found regarding the inclusion of students with intellectual disability in general education classrooms, $t(479) = 4.38$, $p < 0.001$. Male participants ($M = 1.88$, $SD = 0.85$) held more positive attitudes than female participants ($M = 1.56$, $SD = 0.76$). Results of the *t*-tests are presented in Table 22.

Qualitative Results

All surveys that included responses to the open-ended questions in Section II of the *Pre-service Teachers' Attitudes Toward Inclusion Survey* were included in the qualitative data analysis (n = 484). Data analysis was conducted on the four open-ended questions (i.e., survey questions 4-7), following guidelines described by Bogdan and Bilken (2003). Participants described their beliefs in regard to: (a) benefits of inclusion for students with disabilities, (b) benefits of inclusion for students without disabilities, (c) resources needed for successful inclusion, and (d) other issues that need to be addressed for inclusion to be successful. In this section, qualitative findings are shared. Specifically, the categories that emerged (see Table 23) from participants' responses about inclusion are defined and data are presented for each category.

Benefits for Students with Disabilities

Most participants (n = 376) indicated that students with disabilities benefit from inclusion. Six categories of benefits emerged from the data to describe participants' beliefs about the advantages of including students with disabilities in general education classrooms: social, academic, self-worth/sense of belonging, preparation for life/transition into society, and policy issues. Nineteen (5%) responses did not fit in the six categories.

Social benefits. A considerable number of participants (number of responses = 127, 34%) believed that when placed in inclusive settings, students with special needs benefit socially. Respondents noted that students establish peer relationships and interactions with students without special needs when they are educated together. Through peer interactions, students with special needs develop and improve their interpersonal, leadership, and communication skills. Several respondents indicated that peer relationships and interaction promote cooperation among students with and without disabilities. One participant summarized the social benefits of inclusion for students with disabilities as follows: "Students with special needs benefit because it [inclusion] offers them social interaction and integration because inclusion is part of the normalization process which enables disabled learners to experience normal life of integration into society rather than segregation".

Academic benefits. Ninety-five (25%) responses to the question, "Do you think that students with special needs benefit from inclusion?" were categorized as academic benefits. Participants who believed that students with disabilities benefit from inclusion commented on students' opportunities to participate in the same academic activities as their peers without disabilities when they are placed in general education settings. Respondents noted that learning alongside their peers without disabilities encourages students with disabilities to work hard. For

example one participant observed, “Students with special needs are likely to be motivated by the academic skills of students without special needs. This will ensure progress in their academic work and success in inclusion.” Many participants noted that inclusion encourages “competition” among students. Zambian education is highly competitive because of the limited number of school settings. Participants believed that by competing with students without disabilities, students with special needs would be “forced” to work hard and would “end up getting the same grades or even better grades than the students without disabilities.”

Self-worth/Sense of belonging. Complementing the category of “social benefits” was a group of responses that were categorized as “feelings of self-worth and a sense of belonging.” Eighty-five (23%) responses fell into this category, and all focused on the self-worth of students with disabilities included in general education settings. One respondent noted that when students with special needs

> “…have established social relationships with peers without disabilities, they develop a sense of acceptance, which is a good thing for their esteem. Examples are the VI individuals or the HI individuals, they gain self-esteem by identifying that they, as other students, have the right to life and education.”

Reflecting on the students’ sense of belonging, one participant wrote, “Inclusion will help them [students with special needs] motivate [increase] their self-esteem as they will not feel rejected by other students in class.” Because of inclusion, students with special needs learn to identify and appreciate their self-worth as noted by another respondent, “Students with special needs benefit from inclusion, children with special needs start feeling like any other [child] and in the process they become motivated and they develop extra interest in education.”

Preparation for life/Transition into society. Thirty-five (9%) responses to the question, "Do you think that students with special needs benefit from inclusion?" were categorized as preparation for life/transition into society. Respondents viewed inclusion as a starting point for preparing students with disabilities for future life endeavors. One participant wrote, "They [students with disabilities] learn to interact with people who are different from them and this helps them fit in the world of work, later in life, which [the world of work] does not only involve people of their own kind [people with disabilities]." Inclusive settings offer students with special needs opportunities to interact with diverse students. A number of participants viewed these interactions as preparation for transitioning into society because when they leave school, "they mix with other people. So mixing with ALL people is better starting at an early age than being in isolation while schooling. NO MAN IS AN ISLAND." Another respondent described inclusive education as follows:

> They [students with special needs] are trained to be in an environment that they will be in after they leave school. Hence the outside world "after school" will not be a strange place and this will help them fit in, adapt, and face challenges of society just like any other person.

Several participants believed that because of their experiences in inclusive settings, students with special needs will be able to "adapt to life in society as they already experienced it in their school experience."

Policy issues. Fifteen (4%) responses to the question about perceived benefits were categorized as policy issues. Participants noted several benefits for students with disabilities pertaining to policy. When placed in inclusive settings, all students are granted the right to a public education. Notably, participants indicated that students with special needs are given the

same “equal opportunities” as their peers without disabilities in terms of an education. Inclusion reduces the educational gap between children with and without special needs and therefore the right to an education is provided for all children. Some participants observed that because Zambian educational policy mainly focuses on students without disabilities, inclusion allows students with disabilities to have access to the same educational provisions. In response to whether students with disabilities benefit from inclusion, one participant wrote, “Students with special needs can have equal opportunities where education is connected with the non disabled.”

Benefits for Students without Disabilities

Four hundred thirty-six comments were gathered in response to the question “Do you think that students without special needs benefit from inclusion? In describing the benefits of inclusion for students without disabilities, participants’ responses fell into 3 categories: learning about individual differences, social, and academic. These data are described next.

Learning about individual differences. Two hundred twenty-eight (52%) responses to the question “Do you think that students without special needs benefit from inclusion?” were categorized as learning about individual differences. The majority of participants who described their perceived benefits for students without disabilities believed that as students without disabilities interact and “socialize” with their peers with disabilities, they learn about individual differences and gain knowledge about disabilities. One participant noted:

> They learn that children with special needs are like any other child – them. This, therefore, makes them accept such individuals as people with potential differences, though with some inabilities. They learn to understand what causes those differing needs among those who are disabled and therefore try to avoid certain things to prevent such instances to happen to them as well.

Interactions between students with and without disabilities may lead to a better understanding of family members and other people with disabilities as one participant noted:

> If one interacts with a student with special needs at school and if one day at home, a relative or one's sibling has the special need that a friend at school has, it will be easy for one to handle that person with special needs.

Another participant wrote, "They learn to tolerate and respect other people that are not like them. Discrimination is reduced."

Some participants noted that learning about individual differences leads to acceptance, tolerance, understanding, and appreciation of individuals with special needs. For instance, one participant noted that students without disabilities benefit from inclusion "by realizing that there isn't much difference between disabled and non disabled – so that we can no longer fear them. Myths about disability are cleared, like they [individuals with disabilities] have a short temper, which is false." Another respondent stated, "They learn to appreciate God's creation and also learn what disabled persons can do. This makes them change their perceptions on disabilities."

As a result of inclusion and learning about individual differences, students without disabilities may "change their attitudes toward those with disabilities." "They come to terms with disability as they learn more about it." Students benefit from inclusion "as they better understand the SEN children and also how they can help them appropriately. It also brings about reduction of negative perceptions toward SEN children." Ultimately, students without disabilities "will help change societal beliefs and attitudes toward students with disabilities."

Social benefits. One hundred forty-six (34%) responses fell into the category of social benefits as an outcome for students without disabilities. Participants indicated that students

without disabilities benefit from the interactions, friendships, and relationships they establish with peers with disabilities in inclusive settings. For example, one participant stated:

> They [students without disabilities] tend to know how to mingle with students with special needs. They accept that being physically disabled does not mean being mentally disabled. They also understand that they can actually play with students with special needs without them [students without disabilities] getting the disability–not contagious.

Also noted was that in the process of interacting with students with disabilities, students without disabilities forge relationships and learn other skills (e.g., sign language). One participant wrote:

> By learning together with these children, they would develop skills on how to handle and interact with other children with SEN. For example, if they are students with hearing impairments, some non-disabled children may learn sign language, which may be beneficial later in their lives.

Participants described a variety of social benefits for students without disabilities including learning how to communicate, learning how to "socialize," learning how to "handle" and care for students with disabilities, and learning to accept their peers with disabilities. Thus, "students without special needs will benefit from the philosophy [of inclusion] by being accorded the chance to mingle with the less abled and by so doing, they get to know them better and remove the stigma around impaired children." In the end, as one respondent wrote, students without disabilities "learn the language and culture of those pupils with disabilities."

Academic benefits. Sixty-two (14%) responses were categorized as academic benefits of inclusion. Many participants believed that students without disabilities benefit from the academic support that is given to students with disabilities by virtue of being in the same classroom. For example, one participant wrote, "The support that will be given to students with special needs

will automatically be extended to them. If they [students with disabilities] are given extra study materials to use, they will both [students with and without disabilities] benefit." Other participants described benefits for students without disabilities in terms of clarity and the pace of instruction. For instance, respondents stated noted that students without disabilities benefit "when the teacher is repeating what he or she said for those with learning disabilities to understand," and "the child without disabilities will even get to understand better." Another respondent noted that in the process of clarifying instruction for students with disabilities, "students may hear the same information repeatedly and this will help them 'retain' or 'internalize' the information better."

A number of participants described the benefits for students without disabilities in regard to learning materials. One participant stated, "They [students without disabilities] tend to benefit from the materials which are used for students with SEN. They both use the same learning materials to grasp the concepts." Some participants noted that learning in the same classroom with students with disabilities motivates students without disabilities to work harder. One participant stated that they will "realize that if students with disabilities are able to perform well, then they [students without disabilities] can do better." Additionally, another participant wrote that they will "learn to be responsible. It is a challenge to see someone with special needs doing well academically, this will motivate them to work hard."

A lack of benefits for students as a result of inclusion

No benefits for students with disabilities. One hundred eight responses met the criteria for this category. Participants expressed concerns about including students with special needs in general education settings. These participants noted that students with disabilities will encounter academic challenges in general education classrooms due to (a) a lack of trained teachers, (b) a

lack of policies, and (c) negative teacher and peer attitudes and perceptions. Commenting on the academic challenges of students with special needs included in general education settings, one respondent wrote:

> Mostly children with special needs grasp concepts at a slower pace as compared to their fellow students. This makes them lag behind in academics hence painting a picture that adversely affects their emotional well being-the lagging may wrongfully be regarded as being dull.

Another respondent noted that students with disabilities would experience academic difficulties in inclusive classrooms "because they cannot conceptualize things at the same pace as those who are not disabled, particularly the mentally retarded." The challenges for students with disabilities included in general education classrooms may be amplified by the lack of professional development for teachers and limited policies to support inclusion. One participant stated that students with disabilities would not benefit from inclusion:

> Because the environment is not usually supportive to meet their needs; for instance, a lecturer will be using PowerPoint to [with] a visually impaired student. Not only that, the buildings themselves make it difficult for them to find their way to certain places.

Moreover, one participant wrote, "Most schools do not have specialized staff to adequately handle and understand that it requires preparation to be considered when teaching special needs children. Hence the children do not gain from the inclusion." Some participants also commented on the teacher-student ratio within Zambian classrooms, "Zambian schools are overcrowded such that attention to be given to the child with disabilities is not possible, they are left unattended to" and that:

> Zambian classrooms have a very large number of pupils, for example, 50-60 pupils. Having this number in mind, it is very difficult to attend to the needs of children especially when there are a number of other problems that (even) the able bodied children present.

One participant summed up her perceptions of the lack of benefits for students with special needs in inclusive settings as follows: "In Zambia, we do not yet have facilities to make inclusion beneficial to students with special needs. Where inclusion is practiced, the pupils have been disadvantaged and have faced many challenges when learning."

No benefits for students without disabilities. A small number of participants (n = 69) indicated that students without disabilities do not benefit from inclusion. Almost all of these participants cited academics as a reason for their belief. These respondents noted that the presence of students with disabilities in inclusive classrooms slows down the pace of instruction to the detriment of students without disabilities. For instance, one participant wrote:

> If a teacher explains to the class and half of it has special needs, say mental problems, they do not understand quickly. The teacher will be forced to go back to the same point over and over, delaying those without special needs who are ready to move on to the next thing. In most cases they are forced to learn at the pace of those with learning disabilities.

Some participants reported that students with disabilities would monopolize the teacher's time, resulting in the teacher "neglecting" students without disabilities. For instance, one participant wrote, "students without disabilities don't benefit from inclusion because the teacher may be spending much of his time and attention on special needs students. Hence their [students without disabilities] needs as learners could not be achieved." Another participant noted, "The rate at which lessons are conducted bores students without disabilities. This may lead to these students

losing concentration during lessons." The majority of participants who felt that there were no benefits to inclusion indicated that inclusive education "usually delays progress of learning in that students with special needs may take more time to learn things than others." Another respondent wrote, "Students with special needs require individualized attention for them to understand the content of a subject and this may take time and therefore, affect students without special needs."

Needed Resources for Successful Inclusion

When participants were asked what resources were necessary to make inclusive education successful, the students who responded to this question (n = 205) highlighted the lack of (a) appropriate teaching/learning materials and equipment, (b) trained or specialized teachers and support personnel, (c) government support and funding, and (d) facilities, buildings, and classrooms. Each of the 4 categories of data that emerged from this question is described below with representative quotes.

Teaching/learning materials and equipment. One hundred twenty-one responses were categorized as teaching/learning materials and equipment, representing the most frequently noted resource necessary for successful inclusive education. In this category, participants discussed equipment for teachers (e.g., audio/visual teaching aids, assistive technology devices, amplifiers, computers), and equipment and materials for students (e.g., Braille machines, hearing aids, assistive technology). One participant summarized the need for materials and equipment as, "all professional materials and other educational specialized equipment which can meet the educational needs of an individual with special needs." According to another participant, "The classroom should be adaptive such that the child [with special needs] should be finding it easy to learn. For example, there should be Braille for the visually impaired."

Trained/specialized teachers and support personnel. The second most frequently cited resource (n = 62) reported as being necessary for successful inclusive education was the need for highly trained or specialized teachers and support personnel. One participant noted that there is a need to have special education teachers in every classroom because special education teachers are able to understand the needs of children with disabilities and they are able to implement the right interventions. Participants also noted the need for professional development for all teachers. They observed that emphasis should be placed on instructional methods and strategies for working with students with disabilities. One participant stated, "All teachers should undergo training in special education to enable them to handle both children with special needs and able bodied learners in the same class." Another respondent stated, "They [teachers] need some skills on how to deal with people with special needs."

Government support and funding. Fifty-one responses were categorized as government support and funding. Participants noted the need for government support in terms of funding for schools, teacher salaries and incentives, and administrative support. Commenting on the need for funding, one participant wrote, "They [teachers] need finances to help them buy the necessary equipment to teach children with special needs. For example, they need to buy hearing aids and equipment needed to teach the children like Braille for the visually impaired." Another participant elaborated on the need for support from the Ministry of Education (MOE) when she wrote, "Resources from the MOE that facilitate all teaching/learning materials as it does for those who do not have special needs, such as finance, materials, and human resource–teacher aides."

Facilities, buildings, and classrooms. Forty-nine responses were categorized as facilities, buildings, and classrooms. Participants observed that for inclusion to be successful

there is a need for "modified infrastructure [buildings] to make schools and classrooms accessible." Some participants noted that the physical structure of classrooms needed to be modified in order to accommodate "both types of learners" (i.e., students with and without disabilities).

Other issues about inclusion

Finally, participants were given an opportunity to share their thoughts about other issues the researcher did not include in the open-ended questions. One hundred sixty comments were provided in response to this question with participants mostly reiterating their support for inclusion and emphasizing the need for government support, funding, training, and professional development. Participants' responses fell into 5 categories: Policy/government support, training/professional development, families/parent/community support and involvement, research, and support for inclusion/student benefits. Each category is described below.

Policy/government support. Ninety-four responses fell into the category of policy/government support. Participants believed that existing policy does not obligate or support the implementation of inclusive education. One participant wrote, "For inclusion to be successful, the government needs to come up with policies that would support inclusion and make sure that teachers are given knowledge (trained) on students with special need (in special education)." The majority of respondents identified the need for the Zambian government to build or modify existing schools so that the infrastructure suits all children. For example one participant noted, "Zambia has no facilities to include disabled students. The furniture is not suitable and the buildings and surroundings of learning institutions are not user friendly." Another participant stated, "If inclusion has to be successful, there is need for school and

classroom environments to be changed to suit or accommodate the needs of students with special needs."

Others believed that the Ministry of Education should adequately fund schools and provide appropriate teaching and learning materials and equipment, as noted by one participant, "Inclusion can only work if there is proper funding so that all the resources should be available unlike the way it is in most schools now." Another participant wrote, "There is a need for schools to restructure the classrooms in order to provide materials needed for children with special needs, i.e. if inclusion has to occur." One participant concluded that Zambia may not be ready for inclusion:

> What puzzles me in the Zambian situation, it [Zambia] does not realize that inclusion is a process and at the moment we haven't reached there [developed] so we need to move step by step. But in Zambia, it's like we are developed, when in actual sense there still so much on ground [to be done].

Training/professional development. Some participants (n = 24) noted the importance of training and professional development for all teachers in the field in order to facilitate inclusive education. One participant noted that inclusion could be better achieved if all teachers were well informed or enlightened about various disabilities that they are likely to encounter in their classrooms. One respondent suggested, "workshops and seminars should be held for non specialist teachers where skills are to be imparted on how to handle the pupils with SEN in their inclusive classrooms." Commenting on the need for training in special education, one participant wrote, "Success of inclusive education widely depends on teachers' skills and ability to handle such a class and cooperation of the pupils and administration of the school."

Families/parent/community support and involvement. Some participants noted the importance of family and community involvement (n = 20). For example, one participant wrote, "For inclusion to be successfully attained, it requires commitment from teachers and the general public." Other respondents stated that there is a need to "sensitize the community and churches" because "these students need the support of all stakeholders so as to ensure that they are integrated as much as possible." Also, supporting the notion of community involvement, one participant stated, "Teaching the community in which the child with special needs lives can be a good start to inclusion."

Research. Several comments (n = 15) to the open-ended question focused on the importance of conducting research on the topic of inclusion. For example, one participant suggested, "I think before considering inclusion, you must do research on how many schools have equipment to help children with special needs and how many parents are ready to let go of their children with special needs. That is, to go to school." Another participant commented, "A lot of research needs to be done here [Zambia] to find out the impact of inclusion on the learning of the students with special needs because from face value, it has [appears to have] disadvantaged learners with special needs." Finally, another respondent stated, "finding out how those pupils [with special needs] receive their learning is important."

Support for inclusion/student benefits. A few participants (n = 10) reiterated their support for inclusion, citing student benefits. For example, one participant wrote, "I emphasize that inclusion is a good policy in all walks of life because by so doing (including students with disabilities), we will motivate the disabled to go higher in the educational ladder." Some participants cited social benefits in their support for inclusion. One respondent stated, "Inclusive

education should be promoted as it makes children with special needs feel loved as they interact with 'normal' children." Another participant noted,

> Feeling part of the normal world gives students with special needs a boost of self-esteem in class as well as after school. People with special needs can have a feeling of belonging to the world and not feel isolated due to their special needs.

In conclusion, findings from the current study indicate that University of Zambia students generally have positive attitudes toward inclusion. Participants believed that students with disabilities have the same rights to a public education as the peers without disabilities. The majority of participants believed that students with disabilities benefit academically and socially from inclusion. From an educational perspective, participants believed that it is possible to successfully serve students with disabilities in general education settings. In inclusive classrooms, students with disabilities would be motivated to work hard by their peers without disabilities. Also, inclusion would promote social independence and understanding among students with and without disabilities.

Some participants had doubts about the benefits of inclusion for students. First, a student's type of disability appeared to be related to participants' attitudes. Participants were more willing to include students with physical disabilities. Second, several participants noted that students without disabilities may be disadvantaged in inclusive settings because the pace and level of instruction would be lowered. Despite these perceptions, some respondents felt that students without disabilities would benefit from interacting with students with disabilities; inclusion would offer opportunities for students without disabilities to learn about special education and individual differences.

Several factors were related to attitudes toward inclusion: college major, year in college, age, and teaching experience. Participants who were special education majors held more positive attitudes than other students. These students had completed courses in special education and were more knowledgeable about disability issues. Surprisingly, students with more teaching experience held less positive attitudes toward inclusion than more novice teachers. These students may have had negative experiences with inclusion, which impacted their perceptions, such as lack of support from their administration or a lack of resources.

Participants indicated that Zambian schools lack adequate resources and supports for successful inclusive education. Specifically, participants noted the lack of financial support from the MOE, a lack of trained special education teachers, and a lack of learning and teaching materials. A number of participants advocated for additional research to be conducted to improve the implementation of inclusive education in Zambian schools.

Chapter 5

Discussion

The inclusion of students with disabilities in general education classrooms in Zambia is in its infancy stage and research on inclusive education is non-existent. Challenges facing education may be numerous, but Zambia and other developing nations are obligated by the Salamanca Statement (UNESCO, 1994) to provide inclusive education, recognize the right of all children to a free public education, and work toward providing quality community-based education for all learners. Additionally, the Salamanca Statement advocates for organizational changes in schools, curricula, teaching strategies, and learning approaches in order to realize optimal opportunities for all students (UNESCO, 2005). In line with these requirements, the Zambian government has issued a number of policy statements to guide the implementation of inclusive education. This commitment to educating students with disabilities alongside their typically developing peers necessitates the examination of attitudes of individuals involved in the implementation of inclusive education, and in particular, future teachers.

The purpose of this chapter is to relate key research findings to the existing literature on inclusive education. The concurrent triangulation approach (Greene, 2007; Greene, Caracelli, & Graham, 1989) is used to merge survey findings with data from the open-ended questions in discussing key findings of the study. Also, implications for teacher education, policy makers, and advocacy groups in relation to inclusive education are offered. Finally, study limitations and suggestions for future research are shared.

Key Research Findings

Five key findings emerged from this study about Zambian university students' attitudes toward inclusion. First, results indicated that university students appear to have positive attitudes

toward inclusion. Individual Likert-scale items provided insights on specific aspects of students' attitudes toward inclusion. Second, college major was closely related to students' attitudes about inclusion. Third, students who were more advanced in their university program held less positive attitudes toward inclusive education. Fourth, teaching experience impacted attitudes toward inclusion with the length of time in a classroom setting negatively related to positive feelings about inclusion. Fifth, participants raised issues related to a general lack of fiscal and personnel resources to support inclusion in Zambian classrooms. Each issue is discussed in detail below.

Consistent with previous research (e.g., Avramidis et al., 2000a; Caroll, Forlin, & Jobling, 2003; Lambe & Bones, 2006; Martinez, 2003; Romi & Leyser, 2006; Sharma, Moore, & Sonawane, 2003; Yellin et al., 2003) the findings of this study indicate that Zambian university students hold positive attitudes toward inclusion. Participants in numerous U.S. studies believed that students with disabilities benefit from inclusion. In their research synthesis, Scruggs and Mastropieri (1996) reported that inclusion provides academic and social benefits for students with disabilities. Sharma et al. (2006) described inclusion as the promotion of social justice to provide equal educational opportunities for all students. Similarly, participants in the current study believed that students with disabilities have a right to be educated in general education settings alongside their peers. Many students supported inclusion because of the social and academic benefits for students with and without disabilities. In their written responses, participants highlighted the benefits of inclusion for students with and without disabilities. In addition to social and academic benefits, participants believed that by interacting with one another, students learn about individual differences.

When discussing negative aspects of inclusion, McLeskey and Waldron (2002) indicated that teachers worry that inclusion may diminish the overall academic performance within their

classrooms. In the current study, academic concerns were cited by many participants who did not believe that inclusion benefits students with and without disabilities. Participants noted that in addition to students with disabilities experiencing difficulties in inclusive classrooms, the pace of instruction would be slowed down. The Zambian education system remains highly competitive and examination-oriented, and ranking of schools is highly regarded. Success is measured by the number of students who pass their examination at the end of the year. Perhaps study participants who did not favor inclusion felt that having students with disabilities in their classrooms would lower the overall class performance.

In his conceptual framework, Triandis (1971) concluded that the attitude construct is related to a person's affective responses, including feelings, moods, and emotions. These affective responses may range from extremely positive to extremely negative. For instance, thinking positively or negatively about a group of people can be categorized as having a positive or negative affect toward members of that group (Triandis; Triandis, Adamopoulos, & Brinberg, 1984). Based on this view, we may deduce that people who have positive affective experiences develop positive attitudes, while people who have negative affective experiences develop negative attitudes. Furthermore, researchers (e.g., Favazza & Odom, 1997; Salend & Moe, 1983; Triandis, Adamopoulos, & Brinberg; Voeltz, 1980, 1982) found that attitudes toward people with disabilities are influenced by three factors: direct experience, indirect experience, and a person's primary social group. These researchers conducted studies using indirect and direct experiences to promote positive attitudes toward people with disabilities. Findings demonstrated that attitudes toward people with disabilities can be changed by providing positive direct and indirect experience with individuals with disabilities.

The positive results about inclusion uncovered in the current study and previous studies (e.g., Bishop & Jones, 2002; Brownlee & Carrrington, 2000; Lambe & Bones, 2006; Parasuram, 2006; Romi & Leyser, 2006; Sharma, Forlin, Loreman, & Earle, 2006; Yellin et al., 2003) may have been due to positive affective experiences and direct or indirect experience with individuals with disabilities across contexts. Participants in Parasuram's study responded to a survey that included information on their relationships with people with disabilities and participants' frequency of meeting with individuals with disabilities. Participants who were acquainted with people with disabilities held significantly more positive attitudes toward inclusion than participants who did not have relationships with people with disabilities. In the Zambian study, participants completed demographic information about their contact with individuals with disabilities. About 90% of the Zambian students who participated in the current study indicated that they had previous positive contact with persons with disabilities. It is possible that Zambian students' positive contact with individuals with disabilities influenced their overall attitudes toward inclusion.

Perhaps Triandis' (1971) conceptual framework is the reason University of Zambia third year students held more positive attitudes toward including students with disabilities in general education classrooms than second and fourth year students. Third year students represented the largest group of participants (n = 167) compared to first, second, and fourth year students (see Table 24). While 434 (90%) of the total number of participants indicated they had contact with persons with disabilities, 139 (33%) of participants who indicated having contact with persons with disabilities were third year students (see Table 25). Additionally, at the University of Zambia, third year students majoring in primary, secondary, and special education complete an 8-week field experience. The 8-week field experience may have provided opportunities for these

third year students to experience positive affective, direct, and indirect interactions with individuals with disabilities and ultimately influenced their attitudes.

Jung (2007) reported that first year pre-service teachers held more positive attitudes toward inclusion than pre-service teachers who were more advanced in their education program and had completed up to 10 hours of field experience in inclusive settings. Similar findings were reported by Lambe and Bones (2006); they found that pre-service teachers in the early stages of their program held positive attitudes toward inclusion. Likewise, University of Zambia first year students exhibited more positive attitudes toward inclusion than more advanced students. While it is possible that these first year university students had positive direct or indirect experiences with individuals with disabilities while in high school, the students may also have responded to the survey with minimal knowledge about students with disabilities and without a clear understanding about their future responsibilities as teachers in inclusive classrooms. The first year students' positive attitudes indicate that Zambian students may come into teacher education programs with positive attitudes, but teacher education programs may not adequately support and sustain students' beliefs about educating students with disabilities in inclusive classrooms. University of Zambia students noted the importance of connections between the university and the community. Providing opportunities for field and community experiences at all levels (i.e., first through fourth year) may help sustain students' positive attitudes throughout their program.

Some researchers (e.g., Cook, 2002; Forlin, 1995; Forlin, Douglas, & Hattie, 1996; Ward, Center, & Bochner, 1994) have concluded that educators are more accepting of students with physical disabilities than students with intellectual disabilities. Ward and colleagues posited that teachers are in favor of including students who require more "environmental modifications" (e.g., students with physical disabilities, students with visual impairments) than "program

modification" (e.g., students with emotional behavior disorders, students with severe intellectual disabilities). Thus, teachers appear to be more willing to include students who do not require significant adaptations or modifications to the curriculum. Participants in the study by Ward and colleagues held positive attitudes toward inclusion. However, when they were asked about including students with specific disabilities, participants ranked students with intellectual disabilities as the least favorable for inclusion. Likewise, responding to a written questionnaire, participants in Forlin's (1995) study favored including a child with severe intellectual disabilities the least and favored including students with mild physical disabilities the most.

Consistent with these findings, participants in the current study were more positive about including students with physical disabilities than they were about including students with intellectual disabilities. These findings suggest that Zambian students may not feel prepared to adapt and modify instruction for students with a range of abilities. For inclusive education to be successful in Zambian schools, the University of Zambia must consider including differentiated instruction in their teacher preparation program. Differentiated instruction acknowledges the fact that not all students are alike, and therefore, do not all learn the same. Differentiated instruction is an approach to learning that advocates active planning to respond to individual student differences in all classrooms (Hall, 2002; Tomlinson, 2001, 2004). Differentiated instruction requires teachers to be flexible in their teaching approach and flexible in adjusting the curriculum for the benefit of diverse students.

Not surprising, special education majors held more positive attitudes toward inclusion than secondary education majors. This finding is consistent with earlier research. Previous research has suggested that special education teachers have more positive attitudes than general education teachers toward including students with disabilities in general education classrooms

(Jobe et al., 1996; Lipsky & Gartner, 1996; McLeskey et al., 2001; Scruggs & Mastropieri, 1996). Furthermore, earlier findings indicate that positive attitudes about teaching students with disabilities in general education classrooms appear to be related to training in special education (Arbeiter & Hartley, 2002; Bender et al., 2000; Jobe et al, 1996; Lanier & Lanier, 2000; Reusen et al., 2001; Scruggs & Mastropieri, 1996). Participants in the Bender et al.'s study completed a survey on the relationship between teachers' attitudes toward inclusion and the number of special education courses completed. Teachers who had completed more special education coursework held more positive attitudes toward inclusion. In the current study, students majoring in secondary education were not required to take any special education courses. It is not surprising that secondary education majors may have felt that they had insufficient expertise and training to successfully include students with disabilities, and therefore their attitudes toward inclusion were not positive.

In their responses to the open-ended questions, University of Zambia students expressed concerns about the lack of trained or specialized teachers and support personnel, particularly with expertise in sign language and Braille in Zambian schools. Successful inclusive education requires the expertise and services of various professionals to help in the provision of services (e.g., identification, diagnosis, referral, training, evaluation). According to the World Bank report (2004), most developing countries need adequately trained professionals to provide meaningful educational services to children with special needs in inclusive classrooms. Peresuh, Adenigba, and Ogonda (1997) noted that most developing countries south of the Sahara (including Zambia) have training programs for general and special education teachers, but lack programs for training other professionals (e.g., speech therapist, physiotherapist, occupational therapist), who are needed to support inclusive education.

Previous research on the attitudes of primary and secondary school teachers is inconsistent. For example, Leyser and colleagues (1994) found that secondary school teachers held significantly more positive attitudes toward inclusion than elementary school teachers. On the other hand, Savage and Wienke (1989) found that elementary school teachers exhibited more positive attitudes toward inclusion than secondary school teachers. Also, Schumm and Vaughn (1991) reported that elementary school teachers were more likely than secondary education teachers to make adaptations for students with learning disabilities through planning individual assignments, providing alternate materials, and individualizing assessments. Other researchers have reported no significant differences between elementary and high school teachers' attitudes toward inclusion. Consistent with Leyser et al.'s findings, Zambian university students majoring in secondary education held more positive attitudes toward inclusion than students majoring in primary education. Evidently, this area of research is in need of further investigation.

In the current study, participants with more teaching experience held less positive attitudes toward inclusion. This finding is inconsistent with the work by Jobe et al. (1996) and Hsieh et al. (2000). Jobe and colleagues found that teachers with more teaching experience held more positive attitudes toward inclusion. Similarly, Hsieh and others found that teachers with more experience with students with disabilities held more positive attitudes, especially in schools containing special education classrooms where general education teachers were able to consult with special education teachers, and had opportunities to interact with students with disabilities. These experiences resulted in teachers developing confidence and competence in using various teaching strategies and adaptations to meet the needs of students with disabilities.

An important consideration in understanding the disparity of Zambian students' attitudes with regard to teaching experience is participants' responses to the open-ended questions. In this

study, a possible explanation for the negative attitudes of participants with more than 10 years teaching experience is the lack of resources and lack of government support in Zambian schools. Participants expressed concern about the lack of government and administrative support, lack of appropriately designed building facilities and classrooms, and a lack of teaching and learning materials and equipment to support inclusion. Participants noted that Zambian schools were overcrowded making it difficult to attend to individual student needs. Researchers (e.g., Werts, Wolery, Caldwell, & Salisbury, 1996) have identified the shortage of support services as an impediment to inclusive education. Chorost (1988) noted that the willingness of teachers to have students with disabilities in inclusive classrooms is influenced by the size of the class and the teacher's workload. Teachers are more willing to include students with disabilities if they have a small class size. In Zambia, the average teacher-student ratio is about one to fifty (A. S. Chanda, personal communication, March 7, 2011). University students, especially with their belief in excluding students with intellectual disabilities, may have perceived including students with disabilities in an already overcrowded classroom as overwhelming.

Furthermore, participants in the current study noted the lack of funding for teacher salaries and teacher incentives as a need for successful inclusion. Respondents indicated that Zambian teachers are poorly paid and this may lower their motivation to teach in inclusive settings. Larrivee and Cook (1979) found that successful inclusion depends on the motivation of the teachers. Motivation and improved working conditions for teachers may result in an increased willingness to work with students with disabilities. In the Zambian context, teaching and the working conditions for teachers are difficult, even in the absence of students with disabilities. Including students with disabilities may, therefore, be considered an extra burden. The lack of assistance from the government may have frustrated respondents with teaching

experience and led to their negative attitudes about including students with disabilities in general education settings.

Finally, in this study, participants raised issues related to a general lack of fiscal and personnel resources to support inclusion in Zambian classrooms. Participants identified the following needs: (a) teaching and learning materials and equipment, (b) trained teachers (c) government funding and support, (d) building facilities and infrastructure, (e) policies, (f) parent involvement, and (g) research. Similar findings were reported in previous research (e.g., Avramidis et al., 2000a; Pivik, Mcomas, & LaFlame, 2002; Scruggs & Mastropieri, 1996; Werts et al., 1996) where a lack of training, a lack of resources (both human and material), and a lack of facilities and classrooms were identified as barriers to successful inclusion. Clearly, evidence indicates that inadequate facilities, absence of support services, and poor infrastructure are major barriers to achieving meaningful inclusion in developing countries, such as Botswana (Matale, 2001), Ghana (Mawutor & Hayford, 2001), and Uganda (Kiyimba, 1997). The lack of resources and supports in Zambian schools may be attributed to inadequate funding, which is a result of the poor economy within the country. The MOE needs to adopt policies that will assist in redistributing resources for the benefit of all students.

Limitations of the Study

Several limitations should be considered in examining the results of this study. First, the attitudes of students at one public university located in Lusaka, the capital city of Zambia were investigated. Participants were drawn from one college in a single university based on a sample of convenience. Due to this sampling method, generalizability of the results may be limited. There is need to conduct similar investigations with a larger group of college students.

Additionally, studies should be conducted to increase understanding of inclusion and teacher attitudes across other cultures.

Second, it must be noted that this study was based on participants' self-report using a paper and pencil questionnaire. Students may have responded in a socially desirable manner (Heppner, Kivlinghan, & Wampold, 1999), to create a more positive image than what is actually represented in practice. Kennedy (1999) pointed out that although self reports are accurate sources of information because of the apparent relationships between beliefs and actions, classroom observation has been highlighted as the best approximation that researchers can rely on to measure teacher attitudes. Observing teachers' behaviors and actions within inclusive classrooms may provide a better understanding of their attitudes toward inclusion. Therefore, inferences about actual classroom behaviors of the participants in this study should be regarded with caution.

Third, students in Zambia may hold varying beliefs about inclusion based on the severity of a student's disability. In this study, questions were not reflective of the severity of a student's disability and participants responded without considering the severity of students' disabilities. Previous research has indicated that teachers tend to hold more positive attitudes toward the inclusion of students with mild disabilities than students with severe disabilities.

Educational Implications

There are several educational implications that have emerged from the results of this study. Overall, students from the University of Zambia who participated in the current study have positive attitudes toward inclusion. Participants understood the benefits of inclusion for both students with and without disabilities. With these findings, one can presume that inclusion and successful teaching of students with disabilities can be achieved in Zambia, provided that

concerns about needed resources and supports are addressed. Participants indicated that inadequate resources were obstacles to the success of inclusive education. Specifically, students at the University of Zambia identified the need for teaching and learning materials and equipment, trained teachers, government support, and school buildings and facilities.

Clearly, there is need for resource mobilization in Zambia. The majority of participants indicated that teaching and learning materials and equipment were often not available to them. Additionally, school buildings and facilities were not adequate and most were not universally designed. The lack of resources has important implications for policy makers. Sharma, Moore, and Sonawane (2009) emphasized the need to pair policies on inclusion with the provision or resources and supports for teachers and students. These researchers suggest that teachers may be willing to include students with disabilities in their classrooms if they know that resources are available or easy to obtain. On the contrary, teachers may develop negative dispositions about implementing inclusive education when they believe that resources and supports are not available. The MOE has the responsibility to recognize such problems and then provide the necessary supports for teachers and students in inclusive settings.

This study offers ideas for redesigning teacher education programs in Zambia. Results indicate that participants identified the need for training in special education as pertinent to the successful implementation of inclusive education. Currently, the primary and secondary education programs at the University of Zambia do not include coursework or field experiences related to educating students in inclusive classrooms. This program characteristic strongly suggests that the University of Zambia and other teacher education colleges need to design teacher preparation programs that include special education courses to prepare teachers with the necessary knowledge and skills to address the needs of diverse students in inclusive classrooms.

Furthermore, the MOE, in collaboration with the University of Zambia, should design professional development plans to help practicing general and special education teachers gain additional knowledge and skills focused on issues and strategies in special education.

Also, it is important for policy makers and teacher educators to examine the available literature regarding the effect of coursework on teacher attitudes toward inclusion when developing teacher education programs. Including one special education course may not be sufficient to prepare general education students to teach in inclusive classrooms (Taut & Purdie, 2000). Some researchers (e.g., Blanton & Pugach, 2009) have proposed restructuring programs to include dual certification in general and special education. Additionally, field placements need to be examined so that students gain experience in high quality inclusive classrooms. School administrators' and cooperating teachers' attitudes toward special education also need to be examined so that student teachers are provided with placements that are beneficial in terms of inclusive education.

The Zambian education system is highly centralized. All major decisions about education in Zambia are made by the MOE. A critical recommendation, therefore, is to have a reliable, ongoing, and consistent support system linking the MOE with all regional education offices, education departments, and schools. Furthermore, the MOE should formulate clear policies on special education outlining special education services, including policies and practices related to inclusive education. It is imperative for the MOE to develop and disseminate information about special education (e.g., a national definition of inclusive education, disability categories, characteristics associated with various disabilities, special education terminology, support services and identification, assessment, and referral procedures). Furthermore, the MOE should initiate a national information campaign highlighting the government's commitment to educating

students with disabilities in inclusive settings. These recommendations will assist Zambian educators and educational stakeholders to realize their shared vision about special education and inclusion.

Future Research

Findings from this study are cause for optimism about the success of inclusive education in Zambia. University of Zambia students preparing to be teachers were generally positive about including students with disabilities in their classrooms. Further research to assist in generalizing findings from this study to other teacher education colleges would be valuable.

Also, employing mixed methods studies would be useful in order to gather additional information about teacher attitudes. Observational and interview studies should be conducted to examine other factors related to attitudes. These methodologies could provide information on social, physical, and environmental variables that exist within inclusive settings.

Additionally, a more systematic investigation is needed to examine the relationship between training in special education and attitudes toward inclusion. Findings from this study indicate that students majoring in special education held more positive attitudes toward inclusion than students majoring in primary and secondary education. Details about the quality of training with regard to content, duration, and intensity of the program were not investigated. Also, syllabi for entire courses and modules should be developed to help higher education faculty provide better information on inclusion to future teachers across teacher training programs. A study similar in design to one conducted by Hemmeter, Santos, and Ostrosky (2008), focusing on what higher education faculty want in terms of infusing more information on social emotional development and challenging behavior into their classes, should be conducted to examine the infusion of special education content in primary and secondary education programs.

Additionally, future research should examine the impact of specific components of training on pre-service teachers' attitudes toward inclusion.

Finally, inclusion is in its infancy stage in Zambia. The majority of participants in this study expressed the need for resources and administrative support. Future research should examine the impact of different levels of resources on teachers' perceptions of inclusive education.

Conclusion

This is one of the first studies to examine Zambian university students' attitudes toward including students with disabilities in general education classrooms. Findings demonstrate that Zambian students held predominately positive attitudes toward inclusion. However, many students believed that resources and government support were lacking to successfully implement inclusive education. Although participants cited many benefits for students with and with disabilities in inclusive classrooms, some participants noted that students with disabilities would be challenged by the difficulty level and pace of instruction in general education classrooms. Participants also believed that including students with disabilities would be to the detriment of students without disabilities in terms of academic benefits.

Results revealed several variables that were related to participant' attitudes toward inclusion. Specifically, college major, year in college, number of years teaching, age, and gender were related to students' attitudes toward inclusion. Respondents also expressed the need for supports and resources for the successful implementation of inclusion. Students who participated in the study implored the Ministry of Education to avail funding for renovating or building new schools that are universally designed.

Positive teacher attitudes are critical to the success of inclusion. Considering that Zambia is in the early stages of implementation of inclusive education, examining and understanding teacher attitudes provides a starting point for implementing inclusion more fully and successfully. The finding that Zambia's future teachers hold positive attitudes toward inclusion is important. These future teachers' beliefs in the benefits of inclusion for students with and without disabilities may result in their willingness and commitment to successfully implement inclusive education in Zambian schools.

Tables

Table 1

Demographic Information of Participants

Characteristic	Frequency	%
Gender		
Male	214	44.2
Female	270	55.8
Age		
Less than 20 years	49	10.1
21-30 years	247	51.1
31-40 years	122	25.3
More than 40 years	65	13.5
Year in school		
1st year	95	19.7
2nd year	127	26.3
3rd year	167	34.6
4th year	94	19.4
Missing	1	0
Major		
Primary	15	3.1
Secondary	219	45.3
Special Education	249	51.6
Missing	1	0
Teacher status*		
In-service	207	43.9
Pre-service	276	56.1
Missing	2	0
Number of years teaching experience		
Less than 2	8	2.1
2-5	20	4.3
6-10	68	14.1
More than 10	109	22.2
Missing	279	57.3
Training in special education		
Yes	270	56.0
No	212	44.0
Missing	2	0
Contact with persons with disabilities		
Yes	434	89.9
No	49	10.1
Missing	1	0
Years of contact		
Less than 1	86	18.2
1-5	166	34.4
6-10	82	17.2
More than 10	98	19.1
Missing	52	11.1

*Note: Even though the title of the modified instrument was *Pre-service Teachers' Attitudes toward Inclusion Questionnaire*, participants included certified teachers (i.e., "in-service participants") and pre-service teachers.

Table 2

Revisions to Original Pre-service Teachers' Attitudes Toward Inclusion Questionnaire

Item Number	Original statement	Revised statement
1	Students with special needs should be given every opportunity to function in the general education classroom where possible.	Students with special needs have a basic right to receive their education in the general education classroom.
4	The nature of the study in general education classrooms will promote academic growth for students with special needs.	The general education curriculum will promote academic growth for students with special needs.
5	The study skills of students with special needs are inadequate for success in the general education classroom.	Students with special needs are unable to learn in the general education classroom
6	Inclusion promotes understanding and acceptance of individual differences between students without disabilities and students with special needs.	Inclusion promotes understanding and acceptance of individual differences between students with and without special needs.
10	Isolation in a special classroom has beneficial effects on the social and emotional development of students with special needs.	Placement in special classrooms has beneficial effects on the social and emotional development of students with special needs.
11	General-classroom teachers have sufficient training to teach students with special needs.	General education classroom teachers have sufficient training to teach students with special needs.
15	Students with special needs will not waste the general education teacher's time.	Students with special needs will not monopolize the general education teacher's time.
21	General education classroom teachers have appropriate capability to work with students with special needs.	General education classroom teachers have the skills needed to work with students with special needs.
22	Inclusion of students with special needs will necessitate extensive retraining of general classroom teachers.	Inclusion of students with special needs will necessitate retraining of general classroom teachers.

Table 3

Items on Inclusion Questionnaire Included in Reliability and Validity Analyses

Number on Survey	Item content	Item Label
1	Students with special needs have a basic right to receive their education in the general education classroom	B1
2	The inclusion of students with special needs can be beneficial for students without special needs.	B2
3	Inclusion promotes social independence among students with special needs.	B3
4	The general education curriculum will promote academic growth for students with special needs.	B4
5	Inclusion will likely have a negative effect on the emotional development of students with special needs.	B5*
6	Inclusion promotes understand and acceptance of individual differences between students with and without special needs.	B6
7	Inclusion promotes self-esteem among students with special needs.	B7
8	Students with special needs lose the stigma of being "difference" or being "failures" when placed in general education classroom.	B8
9	Placement in special classrooms has beneficial effects on the social and emotional development of students with special needs.	B9
10	Students with special needs are likely to create confusion in the general education classroom.	M1*
11	The behavior of students with special needs will set a bad example for other students in the classroom.	M2*
12	Students with special needs will not monopolise the general education classroom teacher's time.	M3
13	It is likely that students with special needs will exhibit behaviour problems in a general education classroom.	M4*
14	Increased freedom in the general education classroom creates too much confusion for students with special needs.	M5*

(Table 3 *cont.*)

15	Students with special needs will make an adequate attempt to complete their assignments in general education classrooms.	M6
16	The extra attention that students with special needs require will be to the detriment of other students in the classroom.	M7*
17	It is difficult to maintain order in classrooms that have a mix of students with and without special needs.	M8*
18	The behaviour of students with special needs does not require more attention from the teacher than the behaviour of students without special needs.	M9
19	General education classroom teachers have the primary responsibility to teach students with special needs in their classrooms.	A1
20	General education classroom teachers have the skills needed to work with students with special needs.	A2
21	Inclusion of students with special needs will necessitate retraining of general classroom teachers.	A3*
22	General education classroom teachers have sufficient training to teacher students with special needs.	A4
28	Teacher students with special needs is better done by special education teachers rather than general education teachers.	A5*
23	Students with special needs can be best served in general education classrooms.	I1
24	Inclusion of students with special needs will require significant changes in general education classroom procedures.	I2*
25	Students without special needs will likely avoid interacting with students with special needs in inclusive classrooms.	I3*
26	Students with special needs will probably develop academic skills more rapidly in a general education classroom than a special education classroom.	I4
27	Students with special needs are unable to learn in general education classrooms.	I5*

* Item was re-coded to reflect reverse scored item.

Table 4
Initial Reliability Analysis of Benefits of Inclusion

Initial coefficient alpha = 0.669		
Deleted variable	Correlation with total if item deleted	Alpha if item deleted
B1	0.398	0.630
B2	0.394	0.632
B3	0.424	0.625
B4	0.291	0.655
B5	0.273	0.659
B6	0.526	0.609
B7	0.532	0.602
B8	0.359	0.639
B9	**-0.004**	**0.714**

Item B9 (bolded) did not contribute to the reliability of the *Benefits of inclusion* sub-scale.

Table 5

Initial Reliability Analysis for all Sub-scales

Dimension	Alpha	Number of items	Item numbers on questionnaire
Benefits of inclusion	0.669	9	1-9
Inclusive classroom management	0.647	9	10-18
Ability to teach students with disabilities	0.439	5	19-22, 28
Special vs. inclusive general education	0.437	5	23-27
Total	0.776	28	1-28

Note. [a] Pairwise deletion was used for any given analysis where missing data was present. The number of responses for items ranged from 490 to 493

Table 6

Final Reliability Analysis for two Sub-scales

Dimension	Alpha	Number of items	Item numbers on questionnaire
Benefits of inclusion	0.714	8	1-8
Items deleted: B9			
Inclusive classroom management	0.727	6	10-11, 13-14,
Items deleted: M3, M6, M9			15-16

Note. [a] Pairwise deletion was used for any given analysis where missing data was present. The number of responses for items ranged from 490 to 493

Table 7

Eigen Values of Naturally Loading Factors [a]

Factor	Eigen value	Proportion of variance explained	Cumulative proportion of variance explained
1	**4.057**	**0.450**	**0.450**
2	**1.438**	**0.160**	**0.610**
3	**1.249**	**0.139**	**0.748**
4	0.580	0.064	0.813
5	0.529	0.059	0.872
6	0.427	0.047	0.919
7	0.381	0.042	0.961

[a] Only the first 7 factors are shown here although 28 factors were extracted

Table 8

Factor Loadings for Final Exploratory Factor Analysis

Item	Inclusive	Benefit	Special vs Inclusive
B1		**0.48**	
B2		**0.50**	
B3		**0.56**	
B4		**0.36**	
B5*		**0.36**	
B6		**0.65**	
B7		**0.67**	
B8		**0.48**	
M1*	**0.66**		
M2*	**0.48**		
M4*	**0.57**		
M5*	**0.54**		
M7*	**0.51**		
M8*	**0.62**		
A1			**0.43**
A2			**0.66**
A4			**0.58**
I1			**0.45**
I3*	**0.43**		

Note. Rotation method = Oblique

* Item was re-corded to reflect reverse scored item.

Table 9

Inter-factor Correlations for Three-factor Model

		Factor	Factor	Factor
Three-factor model	Factor	1.000		
	Factor	0.393	1.000	
	Factor	0.270	0.228	1.000

Table 10

Class Level, Course, and Number of Participants

Class level	Course	Number of Participants
First year	EPS 152-Special Educational Needs RS-Religious Studies	95
Second year	EPS 252, Teaching Children with Specific Learning Disorders CVE-Civic Education	128
Third year	EPS 352-Classroom Management and Organization CVE-Civic Education	167
Fourth year	EPS 452-Identification, Assessment, and Intervention in Special Education EAP 955-Educational Administration and Management	97

Table 11

Data Analysis

Research Question	Data source	Variable	Analysis
What are the attitudes of University of Zambia education students toward inclusion?	Attitude statements (pages 2-4 of the survey)	Ratings of attitude statements	Descriptive statistics
What demographic characteristics (e.g., age, gender, year in college, contact with a person with disability, major in college, and teaching experience) relate to University of Zambia education students' attitudes toward inclusive education?	Personal demographics (page 7 of the survey)	Age, gender, year in school, major, teacher status, number of years teaching experience, training in special education, contact with persons with disabilities, years of contact	t-test ANOVA
What do University of Zambia education students report as perceived benefits of inclusive education for students with and without disabilities?	Open-ended responses (pages 5-6 of survey)		Content analysis
What resources do University of Zambia education students believe are necessary to make inclusive education successful?	Open-ended responses (pages 5-6 of the survey)		Content analysis

Table 12

Descriptive Statistics for Survey Items

			Frequency			
Survey Item	*M*	*SD*	Strongly Disagree	Disagree	Agree	Strongly Agree
B1	3.23	0.85	28	51	195	219
B2	3.08	0.80	26	63	251	152
B3	3.20	0.81	24	50	223	196
B4	2.81	0.90	49	109	220	115
B5	2.17	0.91	127	195	129	41
B6	3.45	0.71	11	29	182	271
B7	3.21	0.80	19	60	213	201
B8	3.01	0.89	34	91	203	163
B9	2.90	0.86	32	111	222	127
M1	1.99	0.90	174	178	112	29
M2	1.65	0.77	242	198	35	18
M3	2.51	0.81	50	194	198	51
M4	2.60	0.80	52	138	256	47
M5	2.42	0.87	73	192	174	52
M6	2.85	0.73	22	106	287	76
M7	2.69	0.84	40	155	216	81
M8	2.51	0.98	84	163	155	91
M9	1.72	0.82	228	199	39	26
A1	2.68	0.92	63	125	210	93
A2	2.05	0.86	136	227	96	33
A3	3.26	0.83	25	46	195	224
A4	1.87	0.76	163	248	63	17
A5	3.53	0.76	18	27	121	324
I1	2.03	0.81	131	236	102	22
I2	3.32	0.71	10	40	222	219
I3	2.38	0.81	70	200	187	35
I4	2.56	0.88	62	163	198	69
I5	1.87	0.77	166	242	68	16
P1	2.21	0.96	141	146	162	42
P2	1.95	0.89	179	185	98	28
P3	2.31	1.01	140	116	177	58
P4	1.70	0.81	244	164	68	14
P5	3.30	0.83	29	29	198	235

Table 13

Descriptive Statistics for Survey Items (Collapsed)

		Frequency (%)	
Survey Item	*M* (*SD*)	Disagree (Strongly Disagree + Disagree)	Agree (Strongly Agree + Agree)
1. Students with special needs have a basic right to receive their education in the general education classroom	3.23 (0.85)	79 (16.1)	414 (84.0)
2. The inclusion of students with special needs can be beneficial for students without special needs	3.08 (0.85)	89 (18.1)	403 (81.9)
3. Inclusion promotes social independence among students with special needs	3.20 (0.81)	74 (15.0)	419 (85.0)
4. The general education curriculum will promote academic growth for students with special needs	2.81 (0.90)	158 (32.0)	335 (68.0)
5. Inclusion will likely have a negative effect on the emotional development of students with special needs	2.17 (0.91)	322 (65.5)	170 (34.5)
6. Inclusion promotes understanding and acceptance of individual differences between students with and without special needs	3.45 (0.71)	40 (8.1)	453 (91.9)
7. Inclusion promotes self-esteem among students with special needs	3.21 (0.80)	69 (16.0)	414 (84.0)
8. Students with special needs lose the stigma of being "different" or being "failures" when placed in general education classroom	3.01 (0.89)	125 (25.5)	366 (74.5)

Table 13 (cont.)

Survey Item	*M* (*SD*)	Frequency (%) Disagree (Strongly Disagree + Disagree)	Frequency (%) Agree (Strongly Agree + Agree)
9. Placement in special classrooms has beneficial effects on the social and emotional development of students with special needs	2.90 (0.86)	143 (29.1)	349 (70.9)
10. Students with special needs are likely to create confusion in the general education classroom	1.99 (0.90)	352 (71.4)	141 (28.6)
11. The behavior of students with special needs will set a bad example for other students in the classroom	1.65 (0.77)	438 (89.3)	53 (10.7)
12. Students with special needs will not monopolise the general education classroom teacher's time	2.51 (0.81)	244 (49.5)	249 (50.5)
13. It is likely that students with special needs will exhibit behaviour problems in a general education classroom	2.60 (0.80)	190 (38.5)	303 (61.5)
14. Increased freedom in the general education classroom creates too much confusion for students with special needs	2.42 (0.87)	265 (54.0)	226 (46.0)
15. Students with special needs will make an adequate attempt to complete their assignments in general education classrooms	2.85 (0.73)	128 (26.1)	363 (73.9)
16. The extra attention that students with special needs require will be to the detriment of other students in the classroom	2.69 (0.84)	195 (39.6)	299 (60.4)

Table 13 (cont.)

Survey Item	*M* (*SD*)	Frequency (%) Disagree (Strongly Disagree + Disagree)	Agree (Strongly Agree + Agree)
17. It is difficult to maintain order in classrooms that have a mix of students with and without special needs	2.51 (0.98)	247 (50.1)	246 (49.9)
18. The behaviour of students with special needs does not require more attention from the teacher than the behaviour of students without special needs	1.72 (0.82)	427 (86.8)	65 (13.2)
19. General education classroom teachers have the primary responsibility to teach students with special needs in their classrooms	2.68 (0.92)	188 (38.3)	303 (61.7)
20. General education classroom teachers have the skills needed to work with students with special needs	2.05 (0.86)	363 (73.8)	129 (26.2)
21. Inclusion of students with special needs will necessitate retraining of general classroom teachers	3.26 (0.83)	71 (14.5)	419 (85.5)
22. General education classroom teachers have sufficient training to teach students with special needs	1.87 (0.76)	411 (83.7)	80 (16.3)
23. Teaching students with special needs is better done by special education teachers rather than general education teachers	3.53 (0.76)	45 (9.2)	445 (90.8)
24. Students with special needs can be best served in general education classrooms	2.03 (0.81)	367 (74.8)	124 (25.2)

Table 13 (cont.)

Survey Item	*M* (*SD*)	Frequency (%) Disagree (Strongly Disagree + Disagree)	Frequency (%) Agree (Strongly Agree + Agree)
25. Inclusion of students with special needs will require significant changes in general education classroom procedures	3.32 (0.71)	50 (10.2)	441 (90.8)
26. Students without special needs will likely avoid interacting with students with special needs in inclusive classrooms	2.38 (0.81)	270 (54.9)	222 (45.1)
27. Students with special needs will probably develop academic skills more rapidly in a general education classroom than a special education classroom	2.56 (0.88)	225 (45.7)	267 (54.3)
28. Students with special needs are unable to learn in general education classrooms	1.87 (0.77)	408 (82.9)	84 (17.1)

Table 14

Mean Scores and Standard Deviations for Including Students with Specific Disabilities

		Frequency (%)	
Disability Category	*M* (*SD*)	Disagree (Strongly Disagree + Disagree)	Agree (Strongly Agree + Agree)
Emotional and behavioral disorders	2.21 (0.96)	287 (58.5)	204 (41.5)
Hearing impairments	1.95 (0.89)	364 (74.3)	126 (25.7)
Visual impairments	2.31 (1.01)	256 (52.1)	235 (47.9)
Intellectual disabilities	1.70 (0.81)	408 (83.3)	82 (16.7)
Physical disabilities	3.30 (0.83)	58 (11.8)	433 (88.2)

Table 15

Frequency of Categories of Disability Chosen

Category Chosen	Frequency (%)
Physical disabilities	438 (89.0)
Visual impairment	347 (70.5)
Hearing impairment	299 (60.8)
Emotional and behavioral disorders	272 (55.3)
Mild mental retardation	267 (54.3)
Severe mental retardation	100 (20.3)

Table 16

Significant Findings (F statistics) in ANOVA by Major, Year in College, Age, and Years Teaching

Subscale	College Major	Year in College	Age	Years Teaching
Benefits of inclusion	9.80***	12.48***	-----	-----
Inclusive classroom management	8.97***	-----	6.20***	-----
Special versus inclusive education	-----	-----	-----	2.67*
Disability Category				
Physical disability	16.95***	-----	3.23*	-----
Visual impairment	7.69***	3.45*	-----	-----
Hearing impairment	13.55***	3.51*	-----	-----
Emotional behavioral disorders	-----	-----	-----	-----
Intellectual disabilities	-----	-----	-----	-----

*$p < .05$. **$p < .01$. ***$p < .001$.

Table 17

Mean Differences for Primary, Secondary, and Special Education Majors

Subscale	Primary vs. Secondary	Primary vs. Special Education	Secondary vs. Special Education
Benefits of inclusion	-----	-----	.21*
Inclusive classroom management	.43*	-----	.17*
Special versus inclusive education	-----	-----	-----
Disability Category			
Physical disability	-----	-----	.43*
Visual impairment	-----	-----	.35*
Hearing impairment	-----	-----	.42*
Emotional behavioral disorders	-----	-----	-----
Intellectual disabilities	-----	-----	-----

* Significant at alpha < .05 level

Table 18

Mean Differences for First, Second, Third, and Fourth Year in College

Subscale	First vs. Second year	First vs. Third year	First vs. Fourth year	Second vs. Third year	Second vs. Fourth year	Third vs. Fourth year
Benefits of inclusion	.28*	-----	.22*	.31*	-----	.25*
Inclusive classroom management	-----	-----	-----	-----	-----	-----
Special versus inclusive education	-----	-----	-----	-----	-----	----
Disability Category						
Physical disability	-----	-----	-----	-----	-----	-----
Visual impairment	-----	-----	-----	.36*	-----	.27*
Hearing impairment	-----	-----	.28*	.25*	-----	.30*
Emotional behavioral disorders	-----	-----	-----	-----	-----	-----
Intellectual disabilities	-----	-----	-----	-----	-----	-----

* Significant at alpha < .05 level

Table 19

Mean Differences by Age Group

Subscale	<20 vs. 21-30	<20 vs. 31-40	<20 vs. >40	21-30 vs. 31-40	21-30 vs. >40	31-40 vs. >40
Benefits of inclusion	-----	-----	-----	-----	-----	-----
Inclusive classroom management	-----	.21*	.20*	.22*	.21*	-----
Special versus inclusive education	-----	-----	-----	-----	-----	----
Disability Category						
Physical disability	-----	-----	-----	.26*	-----	-----
Visual impairment	-----	-----	-----	-----	-----	-----
Hearing impairment	-----	-----	-----	-----	-----	-----
Emotional behavioral disorders	-----	-----	-----	-----	-----	-----
Intellectual disabilities	-----	-----	-----	-----	-----	-----

* Significant at alpha < .05 level

Table 20

ANOVA Results for Special versus Inclusive General Education by Teaching Experience

Source	SS	df	MS	F	P
Years Teaching Experience	2.406	3	0.802	2.673	0.048
Within Groups	62.407	208	0.3		

Table 21

Mean Differences for Special versus Inclusive Education by Teaching Experience

(I) Number of years of teaching experience	(J) Number of years of teaching experience	Mean Difference (I-J)	SE	Sig.
Less than 2 years	2 to 5 years	-0.065	0.195	0.738
	6 to 10 years	0.015	0.172	0.932
	More than 10 years	0.203	0.167	0.224
2 to 5 years	6 to 10 years	0.080	0.132	0.546
	More than 10 years	.269*	0.126	0.034
6 to 10 years	More than 10 years	.189*	0.085	0.027

*Note. *p < .05*

Table 22

Results for Independent Groups t-test by Gender

	Male (n = 214)		Female (n = 270)				
Dependent Variable	M	SD	M	SD	t	p	Effect size difference
Emotional/ Behavioral disorders	2.280	.899	2.160	1.002	1.372	.171	.120
Hearing impairment	2.050	.906	1.870	.873	2.273	.023*	.180
Visual impairment	2.380	1.007	2.250	1.017	1.391	.165	.130
Intellectual disability	1.880	.847	1.560	.758	4.378	<.001**	.320
Physical disability	3.330	.817	3.280	.842	.639	.523	.050
Benefits of inclusion	3.237	.541	3.168	.500	1.464	.144	.069
Inclusive classroom management	2.719	.553	2.645	.514	1.530	.127	.074
Special vs. inclusive education	2.171	.527	2.143	.587	.553	.580	.029

Note. *$p < .05$

Table 23

Categories and Codes for Participants' Perspectives of Issues Related to Benefits, Resources, and Supports Needed for Successful Inclusion.

Benefits of Inclusion

Benefits for students with disabilities

- Academic
  - Classroom/school learning
  - Academic activities
  - Acquiring knowledge
  - Competing academically
  - Working hard in class activities
  - Excelling/achieving
- Policy
  - Funding
  - Physical accessibility of school/classroom buildings
  - Classroom resources
- Social
  - Peer relationships
  - Interaction with peers
  - Creating friendships
  - Getting assistance/help from peers
  - Learning behavioral/social skills from peers
  - Social communication
- Self-worth/sense of belonging
  - Feeling of equality
  - Acceptance
  - Self-esteem
  - Self confidence
  - Emotional support
  - Loss of stigma
  - Feel part of the group
- Preparation for life/Transition into society
  - Life lessons
  - Being responsible citizens
  - Independent living
  - Societal change in attitudes
  - Preparing students for post school life

Benefits for students without disabilities

- Academic
  - Classroom/school learning
  - Academic activities
  - Acquiring knowledge
  - Competing academically
  - Working hard in class activities
  - Excelling/achieving
- Social
  - Peer relationships
  - Interaction with peers
  - Creating friendships
  - Getting assistance/help from peers
  - Learning behavioral/social skills from peers
  - Social communication
- Learning about individual differences
  - Learning about each others' disabilities
  - Understanding existence of differences
  - Tolerance of disability
  - Celebrating differences
  - Appreciating differences/disability
  - Perception of disability
  - Acceptance of individual differences
  - Social equality
  - Dispelling myths about disability

(Table 23 cont.)

No benefits for students with disabilities

- Academic
  - Lack of trained teachers
  - Lack of policies
  - Negative peer attitudes
  - Negative teacher attitudes

No benefits for students without disabilities

- Academic
  - Pace of instruction
  - Level of instruction

Needed resources for successful inclusion

- Teaching/learning materials and equipment
  - Equipment
  - Materials
  - Resources
  - Assistive technology
  - Teaching/learning aids
  - Books
  - Visual aids
- Trained/specialized teachers and support personnel
  - Special education teachers
  - Support personnel
  - Trained/skilled teachers
- Government support and funding
  - Funding for schools/teachers
  - Salaries
  - Incentives/motivation
  - Administrative support
  - Curriculum issues
  - Class size
- Facilities, buildings, and classrooms
  - Conducive/adapted environment
  - Classrooms/schools
  - Infrastructure (buildings)

Other issues

- Support
  - Funding for schools/teachers
  - Salaries
  - Incentives/motivation
  - Administrative support
  - Class size
- Research
  - Research
  - Finding out information

Table 24

Number of Participants by Major in College

	Year in College			
Major in college	1st year n (%)	2nd year n (%)	3rd year n (%)	4th year n (%)
Primary	11 (2)	0	0	4 (8)
Secondary	33 (7)	89 (18)	65 (14)	32 (7)
Special Education	51 (11)	38 (8)	102 (21)	58 (12)

Table 25

Number of Participants by Year in College and Contact with Individuals with Disabilities

	Year in college			
Contact with individuals with disabilities	1st year n (%)	2nd year n (%)	3rd year n (%)	4th year n (%)
Yes	81 (17)	111 (23)	159 (33)	83 (17)
No	14 (3)	16 (3)	8 (2)	11 (2)

References

Abosi, C.O. (2000a). Trends and issues in special education in Botswana. *The Journal of Special Education*, 34, 48-53.

Abosi, C.O. (2000b). A perspective on the role of special education research in Botswana. *Exceptionality, 8,* 281-289.

Ainscow, M., Booth, T., & Dyson, A. (2004). Understanding and developing inclusive practices in schools: A collaborative action research framework. *International Journal of Inclusive Education, 8,* 125-139.

Andrews, S., & Clementson, J. J. (1997). *Active learning's effect upon pre-service teachers' attitudes toward inclusion*. Augustana College, SD. ERIC Document Reproduction Service No. ED 410 217.

Antonak, R. F., & Larrivee, B. (1995). Psychometric analysis and revision of the opinions relative to mainstreaming scale. *Exceptional Children, 62,* 139–149.

Arbeiter, S., & Hartley, S. (2002). Teachers' and pupils' experiences of integrated education in Uganda. *International Journal of Disability, Development, and Education, 49,* 61-78.

Avramidis, E., Bayliss, P., & Burden, R. (2000a). A survey of mainstream teachers' attitudes towards the inclusion of children with special educational needs in the ordinary school in one local educational authority. *Educational Psychology, 20,* 191-211.

Avramidis, E., Bayliss, P., & Burden, R. (2000b). Student teachers' attitudes towards the inclusion of children with special educational needs in the ordinary school. *Teaching and Teacher Education, 16,* 277-293.

Avramidis, E., & Kalvya, E. (2007). The influence of teaching experience and professional development on Greek teachers' attitudes toward inclusion. *European Journal of Special Needs Education, 22,* 367-389.

Avramidis, E., & Norwich, B. (2002). Teachers' attitudes towards integration/inclusion: A review of literature. *European Journal of Special Needs Education, 17,* 129–147.

Banda, B. (2007). Current status and challenges of in-service training of teachers in Zambia. *Journal of International Education Cooperation, 2,* 89-96.

Bateman, D., & Bateman, C. F. (2001). *A principal's guide to special education.* Arlington, VA: Council for Exceptional Children. (ERIC Document Reproduction Service No. ED455624).

Bender, W. N., Vail, C. O., & Scott, K. (1995). Teachers' attitudes toward increased mainstreaming: Implementing effective instruction for students with learning disabilities. *Journal of Learning Disabilities, 28,* 87-94.

Bennett, T., Deluca, D., & Bruns, D. (1997). Putting inclusion into practice: Perspectives of teachers and parents, *Exceptional Children, 64,* 115–131.

Berry, J. W., & Dalal, A. (1996). *Disability – attitude – belief – behavior study: report on an international project in community based rehabilitation.* Kingston, Ontario, Queen's University, International Center for the Advancement of Community Based Rehabilitation.

Bishop, A., & Jones, P. (2002). Promoting inclusive practice in primary initial teacher training: Influencing hearts as well as minds. *Support for Learning, 17,* 58-63.

Blanton, L. P., & Pugach, M. C. (2009). A framework for conducting research on collaborative teacher education. *Teacher and Teacher Education, 25,* 575-582.

Bogdan, R., & Bilken, S. (2003). *Qualitative research for education. An introduction to theory and methods* (4th ed.). Boston: Allyn and Bacon.

Brace, I. (2004). *Questionnaire Design: How to Plan, Structure and Write Survey Material for Effective Market Research.* London: Market Research in Practice Series.

Bradshaw, L., & Mundia, L. (2006). Attitudes to and concerns about inclusive education: Bruneian in-service and pre-service teachers. *International Journal of Special Education, 21*, 35-41.

Brantlinger, E. (1996). Influence of pre-service teachers' beliefs about pupil achievement on attitudes toward inclusion. *Teacher Education and Special Education, 19,* 17-33.

Brownell, M. T., & Pajares, F. (1999). Teacher efficacy and perceived student success in mainstreaming students with learning and behavior problems. *Teacher Education and Special Education, 22,* 154-163.

Brownlee, J., & Carrington, S. (2000). Opportunities for authentic experience and reflection: A teaching program designed to change attitudes towards disability for pre-service teachers. *Support for Learning, 15,* 99-105.

Buell, M. J., Hallam, R., Gemel-McCormick, M., & Sheers, S. (1999). A survey of general and special education teachers' perceptions and in-service needs concerning inclusion. *International Journal of Disability, Development and Education, 46,* 143–156.

Cambourne, B. (2002). *Trying to change pre-service teacher education: Nibbling around the edges vs. going the hog.* Roundtable paper presented at the ATEA conference, Brisbane, Australia.

Campbell, J., Gilmore, L., & Cuskelly, M. (2003). Changing student teachers' attitudes towards disability and inclusion. *Journal of Intellectual & Developmental Disability, 28,* 369-379.

Carroll, A., Forlin, C., & Jobling (2003). The impact of teacher training in special education on the attitudes of Australian preservice general educators towards people with disabilities. *Teacher Education Quarterly, 30,* 65-79.

Chitiyo, M. (2006). Special education in Zimbabwe: Issues and trends. *Journal of the International Association of Special Education, 7,* 22-27.

Chitiyo, M., & Chitiyo, G. (2007). Special education in Southern Africa: Current challenges and future threats. *The Journal of the International Association of Special Education, 8,* 61-68.

Chitiyo, M., & Wheeler, J. (2005). The development of special education services in Zimbabwe. *International Journal of Special Education, 19,* 46-52.

Chorost, S. (1988). The hearing impaired child in the mainstream: A survey of the attitudes of Regular classroom teachers. *The Volta Review, 22*(1), 302-306.

Clough, P., & Lindsay, G. (1991). *Integration and the support service: Changing roles in special Education.* London, NFER-Nelson.

Coates, R. D. (1989). The Regular Education Initiative and opinions of regular classroom teachers. *Journal of Learning Disabilities, 22,* 532-536.

Coleridge, P. (1993). *Disability, Liberation and Development*. Oxford: Oxfam.

Cook, B. G. (2002). Inclusive attitudes, strengths, and weaknesses of pre-service general educators enrolled in a curriculum infusion teacher preparation program. *Teacher Education and Special Education, 25,* 262-277.

Cook, B. G., Cameron, D. L., & Tankersley, M. (2007). Inclusive teachers' attitudinal ratings of their students with disabilities. *The Journal of Special Education, 40,* 230-238.

Darling-Hammond, L., & Baratz-Snowden, J. (Eds.). (2005). *A Good Teacher in Every Classroom: Preparing the Highly Qualified Teachers our Children Deserve*. San Francisco, CA: Jossey-Bass.

DeBattencourt, L.U. (1999). General educators' attitudes toward students with mild disabilities and their use of instructional strategies. *Remedial and Special Education, 20,* 27-35.

Department of Education (1997). *Quality education for all: Overcoming barriers to learning and development.* Report of the National Commission on Special Needs in Education and Training (NCSNET). National Committee on Education Support Services (NESS). Pretoria, South Africa: CTP Printers.

Department of Education (1997). *South African Education for the 21st Century.* Northway: The Media Education Trust.

Education Secretary's Policy Circular number 12 (1987). *Education Act of Zimbabwe*. Harare, Zimbabwe: Author

El-Ashry, F. R. (2009). *General education pre-service teachers' attitudes toward inclusion in Egypt.* Unpublished dissertation, University of Florida.

Ellins, J., & Porter, J. (2005). Departmental differences in attitudes to special educational needs in the secondary school. *British Journal of Special Education, 32,* 188–195.

Eloff, I., Engelbrecht, P., Swart, E., & Forlin, C. (2000). *Stress areas and coping skills of South African teachers in the implementation of inclusive education*. Paper presented at ISEC Conference, Manchester, England, July 2000.

Favazza, P. C., & Odom, S. M. (1997). Promoting positive attitudes of kindergarten-age children toward people with disabilities. *Exceptional Children,* 63, 405-418.

Flem, A., Moen, T., & Gudmundsdottir, S. (2004). Toward inclusive schools: A study of inclusive education in practice. *European Journal of Special Needs Education, 19,* 85-98.

Florian, L. (1998). Inclusive practice: what, why, and how? In C. Tilstone, L. Florian, & R. Rose (Eds.) *Promoting Inclusive Practice* (pp. 13-26). London: Routledge.

Ford, A., Pugach, M. C., & Otis-Wilborn, A. (2001). Preparing general educators to work well with students who have disabilities: what's reasonable at the pre-service level? *Learning Disabilities Quarterly, 24*, 275–285.

Forlin, C. (2006). Inclusive education in Australia ten years after Salamanca. *European Journal of Psychology of Education, 21,* 265-277.

Forlin, C. (2003). Pre-service teacher education: Involvement of students with intellectual disabilities. *International Journal of Learning, 10,* 317-326.

Forlin, C. (2001). The role of the support teacher in Australia. *The European Journal of Inclusive Education, 8,* 121-131.

Forlin, C. (1998). Teachers' personal concerns about including children with a disability in regular classrooms. *Journal of Developmental and Physical Disabilities,15,* 87-110.

Forlin, C. (1995). Educators' beliefs about inclusive practices in Western Australia. *British Journal of Special Education, 22,* 179-185.

Forlin, C., Douglas, G., & Hattie, J. (1996). Inclusive practices: How accepting are teachers? *International Journal of Disability, Development, and Education, 43,* 119-133.

Frattura, E., & Topinka, C. (2006). Theoretical underpinnings of separate educational programs. *Education and Urban Society, 38,* 327-344.

Gething, L. (1994). The Interaction with Disabled Persons Scale. *Journal of Social Behavior and Personality, 9,* 23–42.

Gething, L., Wheeler, B., Cote, J., Funham, A., Hudek-Knezevic, J., Kumpf, M., McKee, K, Rola, J., & Sellick, K. (1997). An international validation of the interaction with disabled persons scale. *International Journal of Rehabilitation Research, 20,* 149-158.

Giangreco, M. F., Dennis, R., Cloninger, C., Edelman, S., & Schattman, R. (1993). "I've counted Jon": Transformational experiences of teachers educating students with disabilities. *Exceptional Children, 59,* 359-372.

Government of Botswana (1994). *Revised National Policy on Education.* Gaborone, Botswana.

Government of Zimbabwe (1994). *Special Education Policy Statement.* Harare, Zimbabwe.

Government of Zimbabwe (1992). *Education Act*. Harare, Zimbabwe: Government Printers.

Greene, J. C. (2007). *Mixed methods in social inquiry.* San Francisco: Jossey-Bass.

Greene, J. C., Caracelli, V. J., & Graham, W. D. (1989). Toward a conceptual framework for mixed-method evaluation designs. *Educational Evaluation and Policy Analysis, 11,* 255-274.

Groce, N. E. (2004). Adolescents and youth with disability: issues and challenges. *Asia Pacific Disability Rehabilitation Journal, 15,* 13-32.

Hall, T. (2002). *Differentiated instruction*. Wakefied, MA: National Center on Accessing the General Curriculum.

Hannah, M. E. (1988). Teacher attitudes toward children with disabilities: An ecological analysis. In H. E. Yuker (Ed.). *Attitudes Toward Persons with Disabilities* (pp. 154-170). New York: Springer.

Hasazi, S. B., Johnston, A. P., Liggett, A. M., & Schattman, R. A. (1994). A qualitative policy study of the least restrictive environment provision of the Individuals with Disabilities Education Act. *Exceptional Children, 60*, 491-507.

Hastings, R. P., & Oakford, S. (2003). Student teachers' attitudes towards the inclusion of children with special needs. *Educational Psychology: An International Journal of Experimental Educational Psychology, 23*, 87-94.

Heflin, L. J., & Bullock, L. M. (1999). Inclusion of students with emotional/behavioral disorders: A survey of teachers in general and special education. *Preventing School Failure, 43,* 103–111.

Hemmeter, M. L., Santos, R. M., & Ostrosky, M. M (2008). Preparing early childhood educators to address young children's social-emotional development and challenging behavior. A survey of higher education programs in nine states. *Journal of Early Intervention, 30,* 321-340.

Heppner, P. P., Kivlighan, D. M., & Wampold, B. E. (1999). *Research design in counseling.* Belmont, CA: Brooks/Cole.

Houck, C. (1992). *Special education integration-unification initiative for students with specific learning disabilities: An investigation of program status and impact.* ERIC Document Reproduction Service No. ED 352 786).

Hsieh, W. Y., Hsieh, C. M., Ostrosky, M. M., & McCollum, J. A. (in press). Taiwanese first grade teachers' perceptions of inclusive education. *The International Journal of Inclusive Education.*

Huber, J.J. (2009). *A comparison of general education and special education pre-service teachers' use of accommodations, adaptations, and supports in the inclusive classroom*. Paper presented at the Teacher Education Division of the International Council for Exceptional Children, Charlotte, NC.

Individuals with Disabilities Education Act of 2004, 20 U.S.C. § *1400 et seq.*

Ingstad, B. (1995). Mpho ya modimo – A gift from God: Perspectives on "attitudes" toward disabled persons. In: Ingstad, Benedicte, & Reynolds (Eds.), *Disability and Culture.* Berkeley, University of California Press.

Jobe, D., Rust, J.O., & Brissie, J. (1996). Teacher attitudes toward inclusion of students with disabilities into regular classrooms. *Education*, *117,* 148-153.

Jobling, A., & Moni, K. B. (2004). I never imagined I'd have to teach these children: Providing authentic learning experiences for secondary pre-service teachers in teaching students with special needs. *Asia-Pacific Journal of Teacher Education, 32*, 5-22.

Jung, W. S. (2007). Pre-service teacher training for successful inclusion. *Education*, *128,* 106-113.

Kabzems, V., & Chimedza, R. (2002). Development assistance disability and education in Southern Africa. *Disability and Society, 17,* 147-157.

Kalabula, M.D. (2000). Inclusive education in Africa: A myth or reality? A Zambian case study. *Paper presented at the International Special Education Congress 2000, Including the Included.* University of Manchester.

Kasonde-Ng'andu, S., & Moberg, S. (2001). *Moving toward inclusive education: A baseline study in the special education needs in the North-Western and Western Provinces of Zambia.* Basic Education Sub-Sector Investment Programme (BESSIP) Programme Document.

Katwishi, S. (1995). *Viability of developing early identification and intervention services for young children with impairments in Zambia.* Unpublished dissertation, University of Birmingham.

Kazdin, A. E. (2001). *Behavior modification in applied settings* (5th ed.). Brooks/Cole Publishing Company: Pacific Grove, California.

Kennedy, M. M. (1999). Approximation to indicators of student outcomes. Educational *Evaluation and Policy Analysis, 21,* 345-363.

Kiyimba, A. (1997). The case for special needs in institutions of higher learning: the experience of visual impaired students on the Mass Communication program at Makere University. *African Journal of Special Needs Education, 2,* 73-85.

Lambe, J., & Bones, R. (2006). Student teachers' perceptions about inclusive classroom teaching in Northern Ireland prior to teaching practice experience. *Journal of Special Needs Education, 21,* 167-186.

Lanier, N.J., & Lanier, W.L. (2000). The effect of experience on teachers' attitudes toward incorporating special students into regular classrooms. *Education, 117,* 234-240.

Larrivee, B., & Cook, L. (1979). Mainstreaming: A study of variables affecting teacher attitudes, *Journal of Special Education, 13,* 315-324.

LeRoy, B., & Simpson, C. (1996). Improving student outcomes through inclusive education. *Support for Learning, 11,* 32–36.

Leyser, Y., & Tappendorf, K. (2001). Are attitudes and practices regarding mainstreaming changing? A case of teachers in two rural school districts. *Education, 121,* 751-761.

Lobosco, A., & Newman, D. (1992). Teaching special needs populations and teaching job satisfaction: implications for teacher education and staff development. *Urban Education, 27,* 21-31.

Lohrmann, S. & Bambara, L. M. (2006). Elementary education teacher's beliefs about essential supports needed to successfully include students with developmental disabilities who

engage in challenging behaviors. *Research and Practice for Persons with Severe Disabilities, 31,* 157-173.

Lomotsky, L., & Lazarus, S. (2001). South Africa: First steps in the development of an inclusive education system. *Cambridge Journal of Education, 31,* 303-317.

Loreman, T., Sharma, U., Forlin, C., & Earle, C. (2005). *Pre-service teachers' attitude and concerns regarding inclusive education.* Paper presented at the Inclusive and Supportive Education Congress (ISEC) 2005, Glasgow, Scotland.

Martinez, R. S. (2003). Impact of graduate class on attitudes toward inclusion, perceived teaching efficacy and knowledge about adapting instruction for children with disabilities in inclusive settings. *Teacher Development, 7,* 473-494.

Matale, J. L. (2000). *Special education needs as an integral part of Botswana education system: a move towards inclusive education.* Paper presented at the International Special Education Congress 2000. University of Manchester. Retrieved on July 22, 2010, from http://www.isec2000.org.uk/abstracts/papers_m/matale_1.htm

Mawutor, A., & Hayford, S. (2001). *Promoting inclusive education in basic schools in Winneba Circuit: the role of attachment program.* Proceedings of the International Special Education Congress 2000, Oldham.

McHatton, P. A., & McCray, E. D. (2007). Inclination toward inclusion: Perceptions of elementary and secondary education teacher candidates. *Action in Teacher Education, 29,* 25-32.

McLeskey, J., & Henry, D. (1999). Inclusion: What progress is being made across states? *Teaching Exceptional Children, 31,* 56–62.

McLeskey, J. & Waldron, N. L. (2002). Inclusion and school change: Teacher perceptions regarding curricular and instructional adaptations. *Teacher Education and Special Education, 25*(1) 41-54.

McLeskey, J., Waldron, N. L., So, T. H., Swanson, K., & Loveland, T. (2001). Perspectives of teachers toward inclusive school programs. *Teacher Education and Special Education, 24*, 108-115.

Minichiello, V., Aroni, R., Timewell, E., & Alexander, L. (1995). *In-depth interviewing: Principles, techniques, analysis*. Melbourne: Longman Australia.

Ministry of Education (2009). Educational *Statistical Bulletin.* Directorate of Planning and Information, Lusaka, Zambia.

Ministry of Education (2009). *Zambia School Directory – Special Programs.* Lusaka, Zambia.

Ministry of Education (1996). *Educating Our Future: National Policy on Education.* Lusaka: MOE.

Ministry of Education (1992). *Focus on Learning – Policy paper on Zambian education*, Lusaka, Zambia.

Ministry of Education (1977). *Education Reform Document*. Lusaka, Zambia.

Minke, K. M., Bear, G. G., Deemer, S. A., & Griffin, S. M. (1996). Teachers' experiences with inclusive classrooms: Implications for special education reform. *The Journal of Special Education, 30,* 152-186.

Mung'omba, J. (2008). Comparative policy brief: status of intellectual disabilities in the Republic of Zambia. *Journal of Policy and Practice in Intellectual Disabilities, 5,* 142-144.

Mushoriwa, T. (2001). A study of the attitudes of primary school teachers in Harare toward the inclusion of blind children in regular classes. *British Journal of Special Education, 28,* 142-148.

National Center for Education Statistics. U. S. Department of Education. Retrieved June 15, 2009, from http://nces.ed.gov/annuals/

Nyewe, K., & Green, L. (1999). The attitudes of some South African parents towards inclusive education of their children with mild to moderate mental disabilities. *African Journal of Special Needs Education, 3,* 1-10.

Pajares, F. (1992). Teachers' beliefs and educational research: Cleaning up a messy construct. *Review of Educational Research, 62,* 307-332.

Parasuram, K. (2006). Variables that affect teachers' attitudes toward disability and inclusive education in Mumbai, India. *Disability and Society, 21,* 231-242.

Peresuh, M., Adenigba, S. A. Ogonda, G. (1997). Perspectives in Special Needs Education in Nigeria, Kenya, and Zimbabwe. *Africa Journal of Special Needs Education, 2* (1), 9-15.

Peresuh, M., & Barchan, L. (1998). Special education provision in Zimbabwe. *British Journal of Special Education, 25,* 75-80.

Pivik, J., Mccomas, J., & Laflamme, M. (2002). Barriers and facilitators to inclusive education. *Exceptional Children, 69,* 97-107.

Praisner, C. L. (2003). Attitudes of elementary school principals toward the inclusion of students with disabilities. *Exceptional Children, 69,* 135-145.

Pugach, M. C. (2005). *Research on preparing general education teachers to work with students with disabilities.* In M. Cochran-Smith &. K. M. Zeichner (Eds.), Studying teacher

education: The report of the AERA panel on research on teacher education (pp. 549-590). Washington, DC: American Educational Research Association.

Reiter, S., Schanin, M. & Tirosh, E. (1998). Israeli elementary school students and teachers' attitudes toward mainstreaming children with disabilities. *Special Services in the Schools, 13*, 33–46.

Renzaglia, A., Karvonen, M., Drasgow, E., & Saxton, C. C. (2003). Promoting a lifetime of inclusion. *Focus on Autism and Other Developmental Disabilities, 18,* 140-149.

Rich, Y., Lev, S., & Fischer, S. (1996). Extending the concept and assessment of teacher efficacy. *Educational and Psychological Measurement, 56,* 1015-1025.

Rizzo, T., & Vispoel, W. P. (1992). Changing attitudes about teaching students with handicaps. *Adapted Physical Activity Quarterly, 9,* 54-63.

Rojewski, J. W., & Pollard, R. R. (1993). A multivariate analysis of perceptions held by secondary academic teachers toward students with special needs. *Teacher Education and Special Education, 16,* 330–341.

Romi, S., & Daniel, E. (2001). *Integration of students with special needs in the regular classroom: Attitudes of student teachers in colleges in Israel.* In Zozouski B., Ariav, T., & Kenan, A. (Eds) Teacher preparation and their professional development: exchange of ideas (Jerusalem, Ministry of Education, Department of Teacher Education), 259–285.

Romi, S., & Leyser, Y. (2006) Exploring inclusion pre-service training needs: A study of variables associated with attitudes and self-efficacy beliefs. *European Journal of Special Needs Education, 21,* 85-105.

Rose, R. (2001). Primary school teachers' perceptions of conditions required to include pupils with special education needs. *Educational Review, 53,* 147-157.

Ryndak D. L., Jackson, L., & Billingsley, F. (1999, 2000). Defining school inclusion for students with moderate to severe disabilities: What do experts say? *Exceptionality, 8,* 101–116.

Salend, S., & Moe, L. (1983). Modifying nonhandicapped students' attitudes toward their handicapped peers through children's literature. *Journal for Special Educators. 19,* 22-29.

Savage, L. B. & Wienke, W. D. (1989). Attitudes of secondary teachers toward mainstreaming. *High School Journal, 73,* 70-73.

Schumm, J. S., & Vaughn, S. (1991). Making adaptations for mainstreamed students: general classroom teachers' perspectives. *Remedial and Special Education, 12,* 18-25.

Scruggs, T. E., & Mastropieri, M. A. (1996). Teacher perceptions of mainstreaming/inclusion, 1958-1995: A research synthesis. *Exceptional Children, 63,* 59-74.

Semmel, M., Abernathy, T., Butera, G., & Lesar, S. (1991). Teacher perceptions of the regular education initiative. *Exceptional Children, 57,* 9-22.

Shade, R. A., & Stewart, R. (2001). General education and special education pre-service teachers' attitudes toward inclusion. *Preventing School Failure, 46,* 37-41.

Sharma, U. & Desai, I. (2002). Measuring concerns about integrated education in India. *The Asia-Pacific Journal on Disabilities, 5,* 2-14.

Sharma, U., Ee, J., & Desai, I. (2003). A comparison of Australian and Singaporean pre-service teachers' attitudes and concerns about inclusive education. *Teaching and Learning, 24,* 207-217.

Sharma, U., Forlin, C. Loreman, T., & Earle, C. (2006). Pre-service teachers' attitudes, concerns and sentiments about inclusive education: An international comparison of the novice pre-service teachers. *International Journal of Special Education, 21,* 80-93.

Sharma, M. E., Moore, D., & Sonawane, S. (2009). Attitudes and concerns of pre-service teachers regarding inclusion of students with disabilities into regular schools in Pune, India. *Asia-Pacific Journal of Teacher Education, 37,* 319-331.

Shippen, M. E., Crites, S. A., Houchins, D. E., Ramsey, M. L., & Simon, M. (2005). Pre-service teachers' perceptions of including students with disabilities. *Teacher Education and Special Education, 28,* 92–99.

Siegel, J. (1992). *Teachers' attitudes and behaviors toward their students with learning handicaps.* Proceedings of the National Social Science Association Conference, April, 1992, Las Vegas, Nevada.

Simui, Waliuya, Namitwe, and Munsanje (2009*). Implementing inclusive education on the copperbelt in Zambia (Mufulira & Ndola)*. Sight Savers International in partnership with the Ministry of Education.

Skrtic, T. M., Sailor, W., & Gee, K. (1996). Voice, collaboration, and inclusion: Democratic themes in educational and social reform initiative. *Remedial and Special Education, 17,* 142-167.

Smith, M. (2000). Secondary teachers' perception toward inclusion of students with severe disabilities. *National Association of Secondary School Principals (NASSP) Bulletin, 84,* 54-60.

Smith, M. K., & Smith, K. E. (2000). "I believe in inclusion, but-": Regular education early childhood teachers' perceptions of successful inclusion. *Journal of Research on Childhood Education, 14,* 161-180.

Smith, T. E. C., Polloway, E. A., Patton, J. R., & Dowdy, C. A. (2006). *Teaching students with special needs in inclusive settings* (4th ed). Boston: Allyn & Bacon.

Snyder, R. F. (1999). Inclusion: A qualitative study of in-service general education teachers' attitudes and concerns. *Education, 120,* 173-180.

Snyder, L., Garriott, P., & Aylor, M. W. (2001). Inclusion confusion: Putting the pieces together. *Teacher Education and Special Education, 24,* 198-207.

Soodak, L. C., Podell, D. M., & Lehman, L. R. (1998). Teacher, student, and school attributes as predictors of teachers' responses to inclusion. *Journal of Special Education, 31,* 480-497.

Stoiber, K. C., Gettinger, M., & Goetz, D. (1998). Exploring factors influencing parents and early childhood practitioners' beliefs about inclusion. *Early Childhood Research Quarterly, 13,* 107-124.

Subban, P., & Sharma, U. (2006). Teachers' perceptions of inclusive education in Victoria, Australia. *International Journal of Special Education, 21,* 42-52.

Sze, S. (2009). A literature review: Pre-service teachers' attitudes toward students with disabilities. *Education, 130,* 53-56.

Tait, K., & Purdie, N. (2000). Attitudes toward disability: Teacher education for inclusive environments in an Australian university. *International Journal of Disability, Development and Education, 47,* 25-38.

Tomlison, C. (2004). *Fulfilling the promise of the differentiated classroom: Tools and strategies for responsive teaching.* Alexandria, VA: Association for Supervision and Curriculum Development.

Tomlison, C. (2001). *How to differentiate instruction in mixed-ability classrooms* (2nd ed.). Alexandria, VA: Association for Supervision and Curriculum Development.

Triandis, H. C., Adamopoulos, J., & Brinberg, D. (1984). Perspectives and issues in the study of attitudes. In R. L. Jones (Ed.), *Attitudes and attitude change in special education: Theory*

and practice (pp. 21-40). Reston, VA: Then Council for Exceptional Children. (ERIC Document Reproduction Service No. ED 249 694)

Tschannen-Moran, M., & Woolfolk Hoy, A. (2001). Teacher efficacy: Capturing and elusive construct. *Teaching and Teacher Education, 17*, 783–805.

UNESCO (1994). *The Salamanca Statement and Framework for Action.* Paper presented at the World Conference on Special Needs Education: Access and Quality, Salamanca, Spain.

United Nations Development Program (2006). Human Development Reports Indicators. Retrieved August 15, 2006, from http://hdr.undp.org/statistics/data/indicators.cfm?x=101&y=1&z=1.

United Nations Educational Scientific and Cultural Organization (1994). *The UNESCO Salamanca statement and framework for action on special needs education.* Paris: Author.

University of Zambia (2008-2009). *University of Zambia Special Education Departmental Handbook.* Lusaka, Zambia.

Van Reusen, A. K., Shoho, A. R., & Barker, K. S. (2001). High school teacher attitudes toward inclusion. *The High School Journal, 84,* 7-15.

Vaughn, S., Bos, C. S., & Schumm, J. S. (2000). *Teaching exceptional, diverse, and at-risk students in the general education classroom* (Eds.). Boston: Allyn and Bacon.

Villa, B. A., Thousand, J. S., Meyers, H., & Nevin, A. (1996). Teacher and administrator perceptions of heterogeneous education. *Exceptional Children, 63,* 29-45.

Voeltz, L. M. (1982). Effects of structured interactions with severely handicapped peers on children's attitudes. *American Journal of Mental Deficiency, 86,* 380-390.

Ward, J., Center, Y., & Bochner, S. (1994). A question of attitudes: Integrating children with

disabilities into regular classrooms? *British Journal of Special Education, 21*, 34–39.

Weiss, M. P., & Lloyd, J. W. (2002). Congruence between roles and actions of secondary special educators in co-taught and special education settings. *The Journal of Special Education, 36*, 58-68.

Weiss, M. P., & Lloyd, J. W. (2003). Conditions for co-teaching: Lessons from a case study. *Teacher Education and Special Education, 26,* 27-41.

Werts, M. G., Wolery, E. D., Caldwell, N. K., & Salisbury, C. L. (1996). Support and resources associated with inclusive schooling: perceptions of elementary school teachers about need and availability. *Journal of Special Education, 30*, 187–203.

Wideen, M., Mayer-Smith, J., & Moon, B. (1998). A critical analysis of the research on Learning to teach: Making the case for an ecological perspective on inquiry, *Review of Educational Research, 68,* 130-178.

Wilczenski, F. L. (1992). Measuring attitudes towards inclusive education. *Psychology in the Schools, 29,* 307-312.

Wilczenski, F. L. (1993). Changes in attitudes toward mainstreaming among undergraduate education students. *Educational Research Quarterly, 17*, 5-17.

Weiss, M. P., & Lloyd, J. W. (2002). Congruence between roles and actions of secondary special educators in co-taught and special education settings. *The Journal of Special Education, 36*, 58-68.

World Bank. (2004). *Vulnerable Populations, Children with Disabilities and Inclusive Education*. Washington, D.C: The World Bank

World Bank (2000). Household Archives, poverty assessment summaries. Retrieved July 10, 2010, from http://wbln0018.worldbank.org/dg/povertys.nsf/0/aacb0508f0ba718e85256b22005c3e45?

Yellin, P. G., Yellin, D., Claypool, P. L., Mokhtari, K., Carr, R., Latiker, T., Risley, L., & Szabo, S. (2003). "I am not sure I can handle the kids, especially, the, uh, you know special ed kids". *Action in Teacher Education, 25,* 14-21.

Appendix A

Questionnaire for Participants

PRE-SERVICE TEACHERS' ATTITUDES TOWARD INCLUSION SURVEY (El-Ashry, 2009)

Dear Participant,
The purpose of this survey is to learn about your attitudes towards the inclusion of students with special needs in general education classrooms. There are three sections to this survey: (a) pre-service teachers' attitudes towards inclusion; (b) perceived barriers to inclusion; and (c) participant background information. The entire survey should take approximately 30 minutes to complete. Please read the directions and answer each set of questions carefully. The results of individual surveys will be kept strictly confidential. Your name will never be associated with the results. Your participation will contribute to the success of this research.

THANK YOU FOR YOUR ASSISTANCE.

For the purpose of this study, we are defining inclusion as:
A philosophy that brings students with and without disabilities, families, educators, and community members together to create schools and other social institutions based on acceptance, belonging, and community (Sapon-Shevin, 2003).

Section 1: Please circle the number that best describes your agreement or disagreement with the statement. There are no correct answers: the best answers are those that honestly represent your feelings.

Inclusion is a philosophy that brings students with and without disabilities, families, educators, and community members together to create schools and other social institutions based on acceptance, belonging, and community.

Pre-service Teachers' Attitudes toward Inclusion Survey

Item	Strongly Disagree	Disagree	Agree	Strongly Agree
1. Students with special needs have a basic right to receive their education in the general education classroom.	1	2	3	4
2. The inclusion of students with special needs can be beneficial for students without special needs.	1	2	3	4
3. Inclusion promotes social independence among students with special needs.	1	2	3	4
4. The general education curriculum will promote academic growth for students with special needs.	1	2	3	4
5. Inclusion will likely have a negative effect on the emotional development of students with special needs.	1	2	3	4
6. Inclusion promotes understanding and acceptance of individual differences between students with and without special needs.	1	2	3	4
7. Inclusion promotes self-esteem among students with special needs.	1	2	3	4
8. Students with special needs lose the stigma of being "different" or being "failures" when placed in general education classrooms.	1	2	3	4
9. Placement in special classrooms has beneficial effects on the social and emotional development of students with special needs.	1	2	3	4
10. Students with special needs are likely to create confusion in the general education classroom.	1	2	3	4

<u>Inclusion</u> is a philosophy that brings students with and without disabilities, families, educators, and community members together to create schools and other social institutions based on acceptance, belonging, and community.

Pre-service Teachers' Attitudes toward Inclusion Survey. Continued.

Item	Strongly Disagree	Disagree	Agree	Strongly Agree
11. The behaviour of students with special needs will set a bad example for other students in the classroom.	1	2	3	4
12. Students with special needs will not monopolise the general education classroom teacher's time.	1	2	3	4
13. It is likely that students with special needs will exhibit behaviour problems in a general education classroom.	1	2	3	4
14. Increased freedom in the general education classroom creates too much confusion for students with special needs.	1	2	3	4
15. Students with special needs will make an adequate attempt to complete their assignments in general education classrooms.	1	2	3	4
16. The extra attention that students with special needs require will be to the detriment of other students in the classroom.	1	2	3	4
17. It is difficult to maintain order in classrooms that have a mix of students with and without special needs.	1	2	3	4
18. The behavior of students with special needs does not require more attention from the teacher than the behaviour of students without special needs.	1	2	3	4
19. General education classroom teachers have the primary responsibility to teach students with special needs in their classrooms.	1	2	3	4
20. General education classroom teachers have the skills needed to work with students with special needs.	1	2	3	4
21. Inclusion of students with special needs will necessitate retraining of general classroom teachers.	1	2	3	4

<u>Inclusion</u> is a philosophy that brings students with and without disabilities, families, educators, and community members together to create schools and other social institutions based on acceptance, belonging, and community.

Pre-service Teachers' Attitudes toward Inclusion Survey. Continued.

Item	Strongly Disagree	Disagree	Agree	Strongly Agree
22. General education classroom teachers have sufficient training to teach students with special needs.	1	2	3	4
23. Students with special needs can be best served in general education classrooms.	1	2	3	4
24. Inclusion of students with special needs will require significant changes in general education classroom procedures.	1	2	3	4
25. Students without special needs will likely avoid interacting with students with special needs in inclusive classrooms.	1	2	3	4
26. Students with special needs will probably develop academic skills more rapidly in a general education classroom than in a special education classroom.	1	2	3	4
27. Students with special needs are unable to learn in general education classrooms.	1	2	3	4
28. Teaching students with special needs is better done by special education teachers rather than general education teachers.	1	2	3	4
In my view, most students with the following special needs can be educated successfully in general education classrooms:				
29. Emotional (and behavioural) disorders	1	2	3	4
30. Hearing impairments	1	2	3	4
31. Visual impairments	1	2	3	4
32. Mental retardation (intellectual)	1	2	3	4
33. Physical Disabilities	1	2	3	4

Please go to the next page. Your help is greatly appreciated!

Section 2: Please respond to the following questions.

1. Descriptors associated with the concept of inclusion are listed below. Choose **FIVE** terms that are most essential to your definition of inclusion. (√ **five**)

_____ a. supportive environment
_____ b. celebrating differences
_____ c. school restructuring
_____ d. combining best practices
_____ e. administrative mandate
_____ f. guiding philosophy
_____ g. school wide vision
_____ h. supportive assistance for staff
_____ i. supported learning
_____ j. adaptation
_____ k. school as community
_____ l. coordinating services
_____ m. collaboration
_____ n. shared responsibility
_____ o. team instructional approach
_____ p. individualized
_____ q. cooperative
_____ r. social equity
_____ s. integration
_____ t. other (describe:__)

2. When you reflect on your definition of inclusion, to which categories of disability does that definition apply? (√ **all that apply**)

_____ visual impairment
_____ mild mental retardation
_____ physical disabilities
_____ severe mental retardation
_____ emotional (and behavioural) disorders
_____ hearing impairment

3. What components of your teacher training program have had the greatest influence on your attitudes toward inclusion? (√ **all that apply**)

_____ course work
_____ assignments
_____ volunteer experience (e.g., working in a home for children with disabilities)
_____ visiting and observing special education programs
_____ student teaching
_____ other (decribe:_____)

Please go to the next page. Your help is greatly appreciated!

4. Do you think that students **with** special needs benefit from inclusion?

   _____ Yes _____ No

   If yes, provide examples of these benefits. **If no**, please explain why.

5. Do you think that students **without** special needs benefit from inclusion?

   _____ Yes _____ No

   If yes, provide examples of these benefits. **If no**, please explain why.

6. What resources (e.g., fiscal, personnel) do teachers need to successfully include students with disabilities in general education classrooms?

7. Are there other things about inclusion I did not ask, that you want to share?

Please go to the next page. Your help is greatly appreciated!

Participant background information
Please fill in the appropriate boxes (like this: ■).

1. Gender: □ Male □ Female

2. Have you received any training in special education (e.g., coursework, workshop, seminar)?

   □ Yes □ No

3. Have you had previous or current contact with persons with disabilities (e.g., family members, friends, neighbours)?

   □ Yes □ No

   Years of contact

   □ < 1 □ 1-5 □ 6-10 □ > 10

   Frequency of contact (hours per week)

   □ < 5 □ 6-10 □ 11-20 □ > 20

   Type(s) of disability _____

4. What is your year in school?

   □ 1st year □ 2nd year □ 3rd year □ 4th year

   □ In-service □ Pre-service

   If in-service, number of years teaching experience

   □ < 2 □ 2-5 □ 6-10 □ > 10

5. Your age:

   □ < 20 □ 21-30 □ 31-40 □ > 40

6. What is your major?

   □ Primary □ Secondary □ Special Education

7. Would you be willing to participate in a follow-up interview?

   □ Yes □ No

   If you checked yes, please provide your contact information:

THANK YOU SO MUCH FOR YOUR COOPERATION!

Appendix B

University of Illinois IRB Approval

UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN

Bureau of Educational Research
College of Education
58 Education Building
1310 South Sixth St.
Champaign, IL 61820

December 10, 2010

Florence Muwana
Special Education Department
288 Education Building
MC-708

Dear Florence,

On behalf of the College of Education Human Subjects Committee, I have reviewed and approved your research project entitled "Teacher candidates' attitudes toward the inclusion of students with disabilities in general education classrooms in Zambia" pending approval of the host institution. This project meets the exemption criteria for federal regulation 46.101(b)1 for research involving the use of normal education topics in an educational setting where the identity of the participant is protected. It also meets the exemption criteria for federal regulation 46.101(b)2 for research involving the use of normal surveys and interviews where the identity of the participant is protected.

No changes may be made to your procedures without prior Committee review and approval. You are also required to promptly notify the Committee of any problems that arise during the course of the research. Please don't hesitate to contact me with any questions.

Best regards,

Anne S. Robertson
Coordinator, College of Education Human Subjects Review Committee

Cc: Dr. Micki Ostrosky

telephone 217-333-3023 • fax 217-244-0538

Appendix C

University Of Zambia Ethical Clearance

THE UNIVERSITY OF ZAMBIA

DIRECTORATE OF RESEARCH AND GRADUATE STUDIES

HSS/ED/LAW/INESOR RESEARCH ETHICS COMMITTEE

Telephone: 290258/291777
Fax: +260-1-290258/253952
E-mail: Director@drgs.unza.zm
E-mail: cdmalone@jesuits.net

P.O Box 32379
Lusaka,
Zambia.

Ms. Florence Muwana,
Special Education Department,
288 Education Building,
MC-708,
U.S.A.

3rd February, 2011.

Re: Ethical Clearance

Dear Ms. Muwana,

With reference to your research project entitled:

Student Teachers' Attitudes toward the inclusion of Students with Disabilities in General Education Classrooms in Zambia.

The Humanities and Social Sciences Research Ethics Committee (HSSREC) reviewed your research project and raised some concerns which I communicated to you by email of 1st February, 2011 after speaking with your co-supervisor, Dr. Beatrice Matafwali, here in Zambia.

With reference to these concerns, your supervisor, Dr. Michaelene M. Ostrosky, has responded giving a satisfactory explanation along with a copy of the full protocol. I have also received a letter of approval of your research proposal from Anne S. Robertson, Coordinator, College of Education Human Subjects Review Committee.

In view of the above, you now have ethical clearance to proceed with your research.

Please note that you will need to bring this letter of ethical clearance to the Ministry of Health on your return to Zambia for further clearance.

Good luck!

Professor Clive Dillon-Malone,
Chairperson,
HSS Research Ethics Committee.

cc. Director, DRGS.
Assistant Director, DRGS.
Secretary, DRGS.

Appendix D

Participants' Consent Letter

UNIVERSITY OF ILLINOIS
AT URBANA–CHAMPAIGN

November 24, 2010

Dear Student Teacher:

My name is Florence Muwana; I am a doctoral candidate in the College of Education at University of Illinois, USA. I, along with my advisor, Dr. Michaelene Ostrosky, would like to include you in a research project. In this study, we will examine student teachers' attitudes toward including students with disabilities in general education classrooms. We will be collecting data on this topic from students in the School of Education at the University of Zambia, Lusaka, Zambia. This research will help us better understand student teachers' attitudes toward inclusion. Information gained will help us better understand pertinent information for policy development and implementation of inclusive education in Zambia.

Your participation in this project is completely voluntary and information obtained during this research project will be kept strictly confidential. You are free to withdraw at any time and for any reason without penalty. Your choice to participate or not will not impact your status as a student, course grade, or your relationship with the lecturers in the School of Education. If you choose to participate, please sign one copy indicating your consent and retain the second copy for your records. Individual data will not be shared at any time. Data collected will be presented in aggregate form. Individual survey sheets will be coded. After data have been entered for analysis, all identifying information on the survey will be removed and the data will be stored on a password protected computer. Results of this study in aggregate form may be used for dissertation, a scholarly report, a journal article, and conference presentation.

We do not anticipate any risk to this study greater than everyday lecture room activities. We anticipate that the results of the research will improve teacher preparation on issues pertaining to inclusive education. If you agree to participate in this project, please complete the consent letter and survey. It should take about 30 minutes to complete the forms. Please return the completed consent letter and the survey to the researcher. You may refuse to answer any question by simply skipping that item.

If you have any questions about this project, please contact us at the numbers or e-mail addresses provided below. If you have any questions about your rights as a research participant, please contact Anne Robertson, Bureau of Educational Research, University of Illinois, USA, phone: 217-333-3023, or arobrtsn@illinois.edu or the Institutional Review Board, phone: 217-333-2670 or irb@illinois.edu

Sincerely,

Florence Chuzu Muwana
217-333-0260
fmuwana2@illinois.edu

Michaelene Ostrosky, PhD
217-333-0260
Ostrosky@ad.illinois.edu

I certify that I have read this letter and agree to voluntarily participate in this research study

(Print) Name Signature Date

_____ I do not choose to participate in this research