2013

An Investigation Of Attitudes And Perceptions Of Preservice Teachers Compared To First Year Teachers Toward Inclusion

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An Investigation of Attitudes and Perceptions of Preservice Teachers Compared to First Year Teachers Toward Inclusion

A Dissertation

presented in partial fulfillment of requirements

for the degree of Doctor of Education

in the Department of Teacher Education

The University of Mississippi

By

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February 2013

ABSTRACT

Over the last decade the mandated "push" for full inclusion has changed the dynamics of our general education classrooms to the extent that our general education teachers do not feel adequately prepared to teach. The lack of preparation may affect the pre-service teachers' attitude and perception of students with disabilities in a general education classroom. The limited research in this area prompted this study.

The purpose of this quantitative, cross-sectional study was to investigate how the perceptions and attitudes of inclusion and teacher efficacy differ from preservice teacher candidates to first year teachers. Preservice teacher candidates (n=40) and first year teachers (n=51) were students or graduates of one university in southeastern United States. The results were determined by using a variety of statistical testing including a one sample *t*-test, Pearson Correlation Coefficient, and a one-way ANOVA. The findings indicate that preservice teachers and first year teachers believe in having students with disabilities included in their classrooms, but that belief doesn't extend to being able to manage behavior. It also indicated that self-efficacy is consistent in student teacher candidates and first year teachers, but teacher efficacy is higher in student teacher candidates, with teacher efficacy dropping during the first year of teaching.

DEDICATION

This dissertation is lovingly dedicated to my husband Phil of almost 39 years, for his unwavering love, encouragement, guidance, patience, and support through this process. Thank you for understanding how important this goal was to me and helping me to achieve it. There have been many sacrifices on your part and I could not have completed such a huge undertaking without you.

It is also dedicated to my children, T. J., Beth, and Chris and my grandchildren, Siena, Nadia, and Saxtin for their understanding, support, and love during this process.

ACKNOWLEDGMENTS

I want to express my heartfelt appreciation to my dissertation chair, Dr. Jerilou Moore for her faith in me and in my project, and for keeping me grounded throughout this process. I would also like to thank Dr. Kevin Stoltz for always making time for me and my never-ending questions, and for helping me view research in a very different way. Dr. Sidney Rowland, I would like to thank you for starting me on this journey and always being there for me. And last, but not least, Dr. Kaye Pepper for helping me to start this dissertation and for your continued input throughout this process. I could not have completed such an incredible undertaking without my committee's continued support and encouragement.

I would also like to think Dr. Tim Loreman and Dr. Umesh Sharma for permission to use their survey instruments for my study.

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CHAPTER 1

Introduction

The continued focus on equity in reauthorized legislation such as No Child Left Behind Act of 2001 (NCLB) and the Individuals With Disabilities Education Improvement Act of 2004 (IDEA) has been the emphasis on academic, social, and post-secondary outcomes for culturally and linguistically diverse learners (Lee, 2006). Until recently, general education and special education services have been provided in two separate settings with different teachers and different instructional strategies. As part of the 2004 reauthorization of Individuals with Disability Education Act (IDEA, 2004), the first educational placement for all students, including those with disabilities when appropriate, should be the general education classroom based on the students' Individualized Education Plan (IEP). An IEP is a document for the student with disabilities that outlines an individualized educational plan, including related services, needed to assist the student to meet their educational goals (Weber, 2006).

Classrooms today are composed of a diverse population of learners including students with a wide range of disabilities. These disabilities can include learning or physical disabilities. This is largely due to the reforms mandated from the federal government designed to insure both excellence and equity for all students in public schools. Berry (2006) stated that with these mandates, inclusion of students with disabilities in a general education setting is more the rule than the exception. According to the U. S. Department of Education, approximately 58% of all students with disabilities are educated in the general education classrooms 80% of the day (U. S.

Department of Education, 2011). Many colleges today use The National Council for Accreditation of Teacher Education (NCATE) standards for teacher preparation programs to ensure that graduates are prepared for today's inclusive classroom and meet the criteria of IDEA. The students are to be educated in an inclusive setting is clear, but there is a need to address how teacher education programs prepare teachers to teach in this inclusive setting, because new teachers feel inadequately prepared (Boling, 2009).

NCATE (2002) recognizes the need for preservice teachers to have a strong knowledge base with multiple opportunities to increase individual awareness and dispositions with respect to diverse populations. NCATE (2008) defines diversity as "differences among groups of people and individuals based on ethnicity, race, socioeconomic status, gender, exceptionalities, language, religion, sexual orientation, and geographical area" (p. 86). In recent years, inclusion research has moved from the issue of whether to include students with disabilities, to questions of how to make inclusion more effective for all students and teachers.

Even with the mandates from IDEA, inclusion is still a controversial practice. Reasons for the controversy may be revealed in the results of studies discussed in the literature review chapter. According to Boling (2009) these studies suggest general education teachers do not feel prepared to teach children with disabilities in an inclusive setting nor do they feel that it should be their responsibility. A high expectation due to high stakes testing for both special education and general education students is another reason this issue is controversial. These controversial reasons related to inclusion have served to change the structural format of teacher preparation programs.

Along with all the changes for inclusion, there are expanded responsibilities for the general education teachers. Studies prove that they may not have the dispositions, attitudes, or

professional preparations needed to meet these expanded responsibilities (Burke & Sutherland, 2004; Jobling & Moni, 2004; Jung, 2007). Although professional development for in-service teachers remains a prominent approach in preparing for inclusion, increased emphasis has been placed on the roles and responsibilities of teacher preparation programs to prepare new educators for teaching in inclusive settings (Van Laarhoven, Munk, Lynch, Bosma, & Rouse, 2007).

Statement of the Problem

Current research suggests that preservice teacher candidates and practicing teachers report they do not feel prepared for inclusion classrooms (Boling, 2009; Bradshaw & Mundia, 2006; Fajet, Bello, Leftwich, & Mesier, Shaver, 2005). Several issues have been identified that may add to this dilemma: college preparation; lack of field experience with students that have disabilities (Campbell, Gillmore & Cuskelly, 2003; Richards & Clough, 2004); the need for dual certification (Ford, Pugach, & Othis-Wilborn, 2001; Hadadian & Chiang, 2007; Jenkins, Pateman, & Black, 2002; Shippen, Crites, Houchins, Ramsey, & Simon, 2005), which is the certification in both general education and special education; preservice teachers' preconceived attitudes and perceptions toward inclusion (Jobling & Moni, 2004; Jung, 2007; Palmer, 2006); and confidence levels and self-efficacy of in-service teachers and preservice teacher candidates (Berry, 2010; Campbell, Gilmore, & Cuskelly, 2003; Palmer, 2006; Sari, Ceiloz & Secer, 2009). Better understanding of these issues could help to change teacher education programs and produce teachers who are more equipped to handle an effective inclusion environment. Teacher preparation institutions could be the gateway to start these changes.

Teacher preparation institutions have the opportunity to change the way preservice teacher candidates are prepared for today's classrooms (Campbell et al., 2003; Forlin, Loreman, Sharma, & Earle, 2009; Jenkins et al., 2002; Richards & Clough, 2004; Strayton & McCollum,

2002). Inclusion is forcing teacher education programs to take a closer look at the way the curriculum is designed to meet the needs of all learners in the classroom, regardless of the cognitive level. In most teacher education programs the preservice teacher candidates choose between elementary education, special education, and secondary education with very little integration or overlapping of classes between the program areas especially in the area of field experience. Many universities are struggling with the need to revise their curricula and pedagogy to better prepare teachers to meet the needs of all students through inclusion, but to date there is little empirical evidence to support how to change the curricula (Forlin et al., 2009).

According to authors Richards and Clough (2004) and Campbell et al. (2003), field experience is another area that needs to be strengthened in teacher education programs. These authors stress that most teacher education programs do not include field experience with the introductory special education course. This field experience component could help preservice teacher candidates interact with students with disabilities in their natural environment and help the preservice teacher candidate feel the ownership or motivation needed to be a successful inclusion teacher.

One study by Richards and Clough (2004) attained that preservice teacher candidates felt they were prepared for an inclusion classroom until they actually started teaching, then felt they lacked the skills needed to meet the needs of all the learners. The authors agreed that field experience, along with the coursework, could help the preservice teacher candidates feel a more personal contact with these students. This could change their perceptions about working with students with disabilities and help them to want to engage these students in their classrooms. Another study revealed that preservice teacher candidates typically see more value in their field experience than their university coursework (Campbell et al., 2003). The field experience

component of teacher education programs may need to be reviewed and revised to facilitate new teacher confidence in teaching in an inclusive classroom.

With the curriculum needs identified for change in our teacher preparation programs and the addition of field experience in an introductory special education class, the next step could be to incorporate dual certification programs which can prepare teacher candidates for an inclusive classroom (Jenkins et al., 2002). The authors extend this by stating that general education teachers have more content knowledge and special education teachers have more skills in adapting and accommodating students with disabilities. There needs to be a way to combine the knowledge and skills in teacher education programs. Strayton and McCollum (2002) realized one way to infuse general education and special education into a dual certification program would be to have courses taught and field experience supervised by faculty from special education and general education together. Although dual certification may be one way to produce quality teachers for an inclusion setting, preservice teachers' attitudes and perceptions are key to being a successful inclusion teacher.

Attitudes and Perceptions

Preservice teacher candidates' attitudes and perceptions can influence the success of an inclusion classroom (Berry, 2010). These candidates come into the field of education with a variety of values and attitudes based on their own k-12 experiences. With the changing nature of inclusion, these previous experiences could have a negative effect on preservice teacher candidates' perception of teaching students with disabilities. These candidates need a positive attitude to work with students with disabilities and this positive attitude can contribute to the successful implementation of an inclusion program (Burke & Sutherland, 2004). Jobling and Moni (2004) learned that measuring the perceptions and attitudes of preservice teacher

candidates toward inclusion is a starting point for redesigning the teacher education curricula to enhance effective instruction in an inclusive general education setting.

Jung (2007) stated that along with changed attitudes and perceptions of inclusion, preservice teacher candidates need to increase their confidence levels and self-efficacy when dealing with special needs students. Hoy (2000) noticed that preservice teachers' self-efficacy is strong during their student teaching experience, but when they transition into their own classroom reality hits and their self-efficacy could drop causing them to feel inadequate to teach students with special needs.

Preservice teacher candidates, furthermore, must be prepared as educators to ensure that all students in an inclusive setting receive an education of the highest quality possible (Hammond & Ingalls, 2003). This study will seek to add to the current literature by providing comparison data on attitudes and perceptions toward inclusion on two levels of teachers: preservice teacher candidates and first year teachers.

Purpose Statement

The purpose of this study will be to investigate how the perceptions and attitudes differ from preservice teacher candidates to first year teachers.

The researcher will conduct a cross-sectional study from a sample of students graduating with a degree in teacher education from a four-year university and a sample of all students that have graduated and transitioned into first year of teaching. The measures will include perceptions of teaching in an inclusion classroom and self-efficacy and being prepared for an inclusion setting. This quantitative cross sectional study is to determine if there are differences among survey data of two groups; preservice teacher candidates and first year teachers. The

results will be used as additional evidence for the need to change the structure of teacher education programs.

Research Questions/Hypothesis

This quantitative study will concentrate on preservice teacher candidates' and first year teachers' perceptions of preparedness, and responses to thoughts of teacher efficacy concerning preparation and their ability to teach in an inclusion classroom.

This study will include two levels of teachers (preservice teacher candidate and first year teachers) as the independent variable and the survey scores of *The Sentiments, Attitudes, and Concerns about Inclusion Education Revised* (Forlin, Earle, Loreman, & Sharma, 2011; SACIE-R) and The *Teacher Efficacy for Inclusive Practice Scale* (Sharma, Loreman, & Forlin, 2012; TEIP) used as the dependent variable. This study is designed to answer the following question:

Research question: Is there a difference between preservice teacher candidates and first year teachers on instrumentation scores?

Hypothesis 1: There is no difference in mean survey scores for level of teacher compared to the reported population parameter for the instruments.

Hypothesis 2: There is no significant relationship between teacher attitudes and perceptions and teacher self-efficacy scores.

Hypothesis 3: There is no significant difference in mean scores on *SACIE-R* by level of teacher.

Hypothesis 4: There is no significant difference in mean scores on *TEIP* by level of teacher.

Limitations

1. The small sample size of this study could be a factor when comparing data from published population parameters and demographic data from other countries using the instruments *SACIE-R* and *TEIP*.
2. A limitation that is important to this study is that participants are drawn from only one university in the southeastern United States, therefore limiting the external validity of the study and results may not generalize to other universities. Only senior education candidates in the disciplines of elementary education, special education, and secondary education will participate in this study.
3. Timing of the study could affect the results. The survey will be given during the fall semester of the senior year before student teaching. This may affect the results based on lack of time in the field or due to the fact that some students could be taking the Introduction to Special Education course or have just completed the introduction course.

Delimitations

1. This study will collect survey results from senior students at a four-year state university in the southeastern United States during the fall semester of 2012 and from first year teachers that graduated from the same university during the fall of 2012.
2. The participants will complete surveys on their attitudes toward inclusion and self-efficacy during the fall of their senior year and again during their transition into a teaching position.

Definition of Terms

Attitudes – Attitudes are how you feel, positive or negative, toward a person, place, thing, or event (Merriam-Webster, 2012). In this study preservice teacher candidates' attitudes

toward the inclusion of special education students in the general education classroom will be investigated.

Dual Certification – A program that unifies the disciplines of elementary, secondary, and special education to create a pool of educators qualified for inclusion (Jenkins et. al, 2002). The goal for dual certification is to prepare teachers that are more qualified for an inclusion classroom (Ford et al., 2001; Hadadin & Chiang, 2007; Jenkins et al., 2002; Shippen et al., 2005).

Efficacy/Self-Efficacy- Self-efficacy is the overall belief that your actions can produce the outcomes you desire and is the basis for motivation, welfare, and individual achievement (Pajares, 2002). Efficacy addresses the preservice teacher candidates' or general education teachers' confidence in their ability to recognize, challenges, and prevent discrimination and teach special needs children (Silverman, 2010).

Inclusion - Inclusion is the term for educating each child to the maximum extent appropriate with their non-disabled peers (Hadadian & Chiang, 2007). Inclusion is not a single event, but the practice of educating special needs children in their own neighborhood school and with the commitment of the educator to give all children the opportunity to reach their potential (Astor, 2006).

Inclusive Classroom – those classrooms in which students with special needs are educated alongside their non-disabled peers (LeBarbera, 2011).

Individuals with Disabilities Education Act – The Individuals with Disabilities Education Act (IDEA, 2004) is a law that ensures that all students get a free appropriate education in the least restrictive environment possible regardless of the severity of the disability.

Introduction to Special Education Course – The Introduction to Special Education course is an introductory course taken during the preservice teacher candidates' undergraduate education program. Emphasis is on the characteristics of the thirteen categories of special education, per IDEA and the laws that govern special education.

Least Restrictive Environment – The Least Restrictive Environment (LRE) is part of the Individual with Disabilities Act (IDEA, 2004) and is the term used to represent the principle that children with disabilities should be educated with their peers as often as possible and that removal to a more restrictive settings should only happen when the child's disability prevents them from achieving appropriate goals in a regular education setting, even when providing supplementary aids and supports their disability (Raymond, 2012).

No Child Left Behind – No Child Left Behind (NCLB, 2001) Act necessitates that schools develop assessments in fundamental skills to be given to all students in certain grades and is a support standards-based education reform. This is a belief that setting high obtainable standards and instituting measurable objectives can increase individual results in education (Lambert, Curan, Prigge, & Shorr, 2005).

Preservice teacher candidates - College student who is participating or enrolled in education courses or practica (Kagen, 1992). The student is not yet certified to teach.

Social Cognitive Theory- Social Cognitive Theory is the basic human purpose of the three areas of personal, behavioral, and environmental pressures (Pajares, 2002). Psychologist Albert Bandura is the founding father of this theory. According to Bandura (1977), there is a conception of triadic reciprocity between behavior, environmental factors, and personal factors, such as cognitive, affective, and biological events. Using this theory, teachers can make things better in an inclusive setting by engaging in their own development and changing in actions.

Social Constructivism – Social Constructivism is the importance of culture and circumstance that happens in society and creates a foundation of knowledge from that circumstance (Kim, 2001).

Teacher-efficacy - "a teacher's belief that he or she can reach even difficult or unmotivated students to help them learn" (Woolfolk, 2007, p.334).

Significance of the Study

The significance of this study is the limited research on preservice teacher candidates sentiments and support for inclusion (Forlin et al., 2011; Sze, 2009) This study will to add to the current literature by providing comparison data on the two levels of teachers: preservice teacher candidates and first year teachers. This data will focus on the attitudes and perceptions of preservice teachers' self-efficacy toward inclusion and the improvement or decline of teacher-efficacy toward inclusion as they transition into first year teachers. Knowing more about how these groups differ may help to inform teacher education programs how to assist teachers in this critical transition period of one year service with an inclusion classroom.

Organization of the Study

This study is organized into five chapters. Chapter 1 is an introduction to the study along with the purpose of the study, research questions related to the study, limitations of the study, delimitations of the study, clearly defined terms of the study, and the significance of the study. Chapter 2 reviews the related literature in the field starting with the history of inclusion and the different theories of inclusive education and will continue with a discussion about different types of training for preservice teacher candidates including options for field experience and dual certification. This chapter concludes with recent studies on attitudes, perceptions, and self-efficacy of preservice teacher candidates and general education teachers. Chapter 3 outlines the

research design and methods used in the study including data collection and analysis procedures, as well as, a discussion of the psychometric information to validate the findings. Chapter 4 will be the analysis of the data collected. This chapter will include the organization of the data, the demographic data, and research questions and associated hypotheses. The last chapter, Chapter 5, will include a discussion of the findings, conclusions, and implications of the study. The researcher will propose future research based on the findings of this study.

CHAPTER 2

Review of Literature

Introduction

The literature review is focused on topics that are essential to understanding the history of special education, preservice teacher education program training and field experience, current research on preservice teacher and first year teacher perceptions on inclusion, and self-efficacy of both. The discussions about these issues address whether or not there is a need for change in teacher education programs to better meet the needs of students. According to Brownlee and Carrington (2000) there is a need for research that studies preservice teachers educated in a general education setting and their development of positive attitudes toward students with disabilities. The purpose of this review is to emphasize the need for this study in the field of education and how to positively influence preservice teacher candidates' attitudes and to be prepared for today's diverse classroom.

History of Special Education Law

Prior to the 1970s most schools did not provide programs for students with disabilities in a public school setting, even after the landmark case of *Brown v. Board of Education* (1954). The decision of this case determined that schools cannot discriminate on the basis of race, establishing that a "separate" education is not an equal education. White, Lakin, Bruininks, and Li (1991) interpreted that this legislation could also be directed toward students with disabilities that were segregated. In 1965 approximately 100,000 students, birth to 21 years of age, were

still in institutions. After several years, other court cases began to be tried that actually make a difference in the way children with disabilities were educated.

In the 1970s, U. S. Supreme Court cases such as the case of *Pennsylvania Association for Retarded Children (PARC) v. Pennsylvania* in 1972 had an impact on the movement toward inclusion. The PARC case declared that a child with mental retardation be placed in the general education setting because segregating the child from their nondisabled peers violated the child's due process and equal protection rights. A similar court case, *Mills v. Board of Education (1972)*, also held that a school's actions violated the due process rights of children with disabilities (Katsiyannis, Yell, & Bradley, 2001). Even with these rulings and the numerous court cases that followed, many students were still denied services. As a result, Congress enacted legislation to assure the educational rights of all students with disabilities were upheld.

Congress enacted several laws that have changed the face of special education and also had a significant role in changing the position of the federal government in special education. The most important and most recognized law was Public Law 94-142 (Education of All Handicapped Children Act), now known as Individuals with Disabilities Education Act (IDEA, 2004) was signed into law in November of 1975 by President Gerald Ford. This law was created to provide all students with disabilities the right to a free appropriate public education in every state and locality across the country, protect the rights of these students with disabilities and their parents, and assist the states and localities in their efforts to provide these services as needed (Katsiyannis et al., 2001). It is clear that Public Law 94-142 was written to protect children with disabilities and brought about many of the changes that have impacted the field of education today.

One of the changes that P.L. 94-142 brought about was how students with disabilities were educated (Katsiyannis et al., 2001). For the first time, children ages 3-21 could have a free appropriate education in their own neighborhood school. Before this law was passed, there was concern that children were being excluded from a public school education and those that were allowed to go to school were given limited access to educational curriculum. These students were in private schools or facilities paid for by the parents, or the children went without education of any kind.

Another change brought about by Public Law 94-142 in 1990 and revised again in 2004 was the support of transition services from high school student to adult. Being involved in the transition of students with disabilities could mean preparing them for a work force that catered to their disability, getting the families help from government agencies, and connecting families to appropriate community agencies that could help with the transition (Katsiyannis et al., 2001).

Public Law 94-194 has brought about the concern for younger children with disabilities and their families. When Public Law 94-194 was revised in 1986, it was mandated that states provide services and programs to infants and toddlers with disabilities from birth. These programs and services help infants and toddlers to meet the academic and social challenges they experience as they mature. Today, this practice is far-reaching and has been a very successful way to prepare children with disabilities for today's inclusive classrooms (Katsiyannis et al., 2001).

IDEA has been revised or reauthorized many times since its enactment. According to Smith (2005) there was a problem with the way students with learning disabled were identified. The use of the discrepancy model to determine eligibility in this area was common practice. This model used a severe discrepancy between IQ scores and achievement test scores to

determine eligibility for special education services. The last reauthorization of IDEA was completed in 2004 with the main goal of no longer using the discrepancy model to determine eligibility for special education services for children. This reauthorization has allowed schools to find other ways to determine if a student needs help academically before actually failing. This also aligns with No Child Left Behind (NCLB) which has added a "push" toward the inclusion process by forcing districts to be accountable for the progress of special education students as a subgroup of all learners (Cullen, Gregory, & Noto, 2010). NCLB uses Response to Intervention (RTI) to circumvent the "wait to fail" procedure before considering special education services (Berry, 2008; National Joint Committee on Learning Disabilities, 2005).

No Child Left Behind (NCLB) has also required a change in teacher certification requirements. The move toward a more performance-based evaluation approach for teacher candidates (Shippen et al., 2005) means that perspective teacher candidates are more prepared to meet the needs of all learners in a diverse setting. NCLB also calls for highly qualified teachers that can meet the needs of all learners and show adequate yearly progress (AYP) on state standardized testing (Harvey, Yssel, Bauserman, & Merbler, 2010).

Another goal of the reauthorization of IDEA in 2004 was the least restrictive environment (LRE) appropriate to meet the individual needs of students with disabilities and this would begin in a general education classroom. LRE or inclusion of students with disabilities in general education setting is the attitude that supports equal consideration for all students in an educational setting regardless of the child's disability (Loreman, Earle, Sharma, & Forlin, 2007). Bradshaw and Mundia (2006) tell us that inclusion is accommodating learning and the curricula to meet the needs of all learners in a diverse classroom setting. This legislation also encourages recognition, acceptance and dedication in application by general education teachers.

Inclusion requires that diverse students are educated in the general education setting and exposed to the same curriculum as general education students. These children who have been educated in a special education classroom are now expected to perform academically in a general education class with their non-disabled peers with support from the special education teacher. Inclusion is a means of reducing the label on special education students as "socially undesirable" but, at the same time, providing a safe, secure atmosphere in which the diverse population can learn (Symeonidou & Phtiaka, 2009).

Inclusion also stresses the need for accommodating the learner's setting and curriculum, to meet all students' needs, and to create a sense of community (Bradshaw & Mundia, 2006). According to the U.S. Department of Education, National Center for Education Statistics (2011), in 2007, 95% of six to 21-year-old students with disabilities were served in general education classrooms; 3% were served in separate schools; and 2% in private-pay facilities or hospitals. Therefore, it is more important than ever to train general education teachers to provide educational services that are meaningful and measureable for students with disabilities.

Stodden, Galloway, & Stodden (2003) established that with the directive for LRE, these students are spending the majority of their day in a general education classroom with teachers who have little or no preparation in addressing the students' individual needs and assisting them with standards-based criteria. Also, according to Sze (2009) with school districts making the decision to apply the principles of full inclusion in their schools, preservice teacher candidates participating in field experience opportunities are placed in diverse settings with students with disabilities. Due to the inclusion directive, teachers and teacher education programs must find ways to refine the curriculum and meet the needs of all students. According to Burke and Sutherland (2004) this will require much more knowledge and expertise.

Teacher education and curriculum must be coordinated so that students can obtain a variety of knowledge and skills related to the concept of inclusion (Florian & Rouse, 2009). The first step in reaching these higher criteria should be to understand different theories that affect inclusion and the various types of characteristics and modifications for disabilities in the classroom (Turner, 2003).

Theories

Liston, Whitcombe, and Borko (2006) establish that one reason first year teachers have a difficult time with inclusion is that they are taught incorrect theories in their teacher education programs. The researchers also suggest that for teachers to achieve educational justice and equality for all students there has to be the development of a multidimensional theoretical standard that addresses the issues of discrimination and status in a diverse classroom (De Valenzuela, Connery, & Musanti, 2000).

There are several theories that can relate to inclusion: social constructivism, sociocultural theory, and social cognitive theory.

Social Constructivism Theory. Social constructivism stresses the importance of understanding what is happening in society and constructing knowledge based on this understanding. This theory is strongly advocated by Vygotsky's (1986), Bruner's (1986), and Bandura's (1977) social cognitive theory. Social Constructivism theory is an instructional model that is based on the need for collaboration among students and teachers. The constructivist part of the theory helps us to understand that a person constructs their mental framework and conceptions from a variety of fields including philosophy, psychology, and science. The theory relates to inclusion because it advocates the development of a caring community. A caring community can make all students in the class feel like they belong and help students learn to care

for each other. When students feel they belong to the community, it makes inclusion a reality (Bloom, Perlmutter, & Burrell, 1999).

Social Constructivism advocates teaching techniques that are both personal and interpersonal. These techniques should allow the students and teachers to be more aware of and responsible for their own thinking. This realization can increase the understanding and appreciation of others and their thinking (Johnson, 2001).

Sociocultural Theory: Another theory closely related to special education is the sociocultural theory. Again this theory was introduced by Vygotsky (1986) and stresses the interaction between culture and people in society. Sociocultural theory relates to inclusion because of the roles in schools and the resistance to social equities which results in teachers not treating all students equal. We tend to stereotype and make assumptions about students based on the inability to perform academically or behaviorally, as expected based on the norm (De Valenzuela et al., 2000).

The sociocultural theory has become a standard in teacher education programs and has begun to influence the general education teachers through in-service programs in many schools (De Valenzuela et al., 2000). In teacher education programs across the country there is very little social interaction with students that have disabilities (Zumwalt & Craig, 2005). The research today should focus on increasing culturally responsive classrooms as well as concentrating on gaps and deficiencies in preservice teachers' experiences, attitudes, and perceptions of inclusion (Castro, 2010).

Social Cognitive Theory: The third theory related to special education that will be discussed in the literature review is the social cognitive theory. Psychologist Albert Bandura is the founding father of this theory. According to Bandura (1977), there is a conception of triadic

reciprocity between behavior, environmental factors, and personal factors, such as cognitive, affective, and biological events. Using this theory, teachers can make things better in an inclusive setting by engaging in their own development and changing in actions.

Self-efficacy is part of Bandura's social cognitive theory and can influence choices people make and the course of action taken. The higher the self-efficacy, the more they will try to master challenges rather than avoid these challenges (Pajares, 2002). Self-efficacy can also help preservice teachers develop the skills needed to improve their emotional well-being and develop conflict resolution skills to help build learning communities in an inclusive classroom (Liston et al., 2006).

Although theory plays a part in the way that teachers react to students with disabilities, there is a need to focus on the teacher preparation programs to facilitate better overall interaction between these students and teachers. The next section will discuss ways to redesign preservice teacher education programs to help meet this need.

Training

Due to the ever-changing face of today's diverse classroom, research suggests that teacher preparation and training will have to be aggressively directed toward the goal of inclusion. Teachers must be ready to teach students who have varied educational needs, emotional and behavioral problems, as well as English Language Learner (ELL) (Lambe, 2007). The focus of most k-12 schools is to promote inclusive education, but there seems to be little success in that area (Angelides, 2008). Universities are in a position now to help preservice teacher candidates' gain the knowledge and achievements needed to be successful in an inclusion setting (Turner, 2003). Inclusion requires that teacher education programs prepare preservice

teacher candidates to recognize and meet the needs of students with disabilities and have the skills to work with these students successfully (Alghazo, Dodeen, & Algaryouti, 2003).

To gain the needed knowledge and understanding, there must be a change in the way we educate preservice teacher candidates. There must be a deviation from the academic strategies that teacher education programs traditionally use to a curriculum that provides these needs and shape attitudes for today and future classrooms (Ambe, 2006). Ambe (2006) established that one way to change the educational programs would be to add multicultural education that extends to all disciplines of education and is not just limited to one course.

Sogunro (2001) identified that most teachers leave teacher education programs with the content knowledge needed, but do not have the ability or attitude to effectively meet the needs of all learners in an inclusion classroom. Preservice teachers must be prepared to meet the inclusion challenge with a firm knowledge, appropriate attitudes, and skills. Forlin, Cedillo, Romero-Contreras, Fletcher, and Rodriguez (2010) found that 44% of the preservice teacher candidates (n=286) that participated in their study had not received the training they needed and were not fully aware of what was needed to educate students with disabilities in an inclusive classroom. These teacher educator programs need to find ways to help preservice teacher candidates reach this goal (Bradshaw & Mundia, 2006).

Many universities are struggling with the need to revise their courses to meet the changing focus that influences curricula and pedagogy, but, to date, there is little empirical evidence to support how to change the curricula (Forlin et al., 2009; Forlin, Loreman, Earle, & Sharma, 2007). Forlin et al. (2007) recognized that without this empirical data critical decisions cannot be made on how to impact teacher education programs related to inclusion or increase positive attitudes in an inclusive classroom.

Even after more than 25 years of education reforms, there still seems to be a mismatch between what is happening in schools today and the teacher education programs. According to McIntyre (2009) teacher education programs have helped preservice teachers expand their understandings, outlooks, and academics, but this did not help them to be successful teachers in a diverse school setting.

Most teacher education programs stress the differences between the programs of elementary, secondary, and special education, which is not realistic, because teachers must be well versed in the ability to adapt curriculum and instruction to meet the needs of all the learners in the classroom (Hardman, 2009). This holistic view of education is a sharp contrast for most teacher education programs. Teacher education programs are set up in such a way so preservice teachers decide to work with a distinct set of children based on age and/or special needs which in turn create the obstacles we see in today's diverse classrooms.

One study conducted with higher education faculty discovered that even though most colleges offer one class of introduction to special education, there needs to be more collaborative transdepartmental efforts to meet the requirements of NCLB and IDEA (Harvey et al., 2010). This one class of special education has helped preservice teacher education candidates shape ideas and beliefs toward inclusion, but friends and family influenced their beliefs more than the one special education class (Garriott, Snyder, Tennant, & Ringlaben, 2004). Very few preservice teachers are able to experience collaboration between the general education teacher and the special education teacher unless they are special education majors.

It is difficult for higher education faculty to relate to the need for being prepared for a diverse classroom, because many of them have not experienced these types of classrooms themselves and do not understand the challenges that today's general education teachers face

(Richards & Clough, 2004). Therefore, it is harder for higher education faculty to sustain the positive belief that some college students have when entering the educational program and provide them tools needed to be effective inclusion teachers.

The inception of the Blue Ribbon Panels or Committees was created to provide more focus on educational practices and help impact the teacher education programs in a positive way by providing reports, surveys, policy reviews and studies on teacher preparation. It also helped to launch new initiatives, but there are still many challenging claims about teacher education programs and the policies and practices directing those claims in teacher preparation, performance, and educational outcomes (Cochran-Smith, 2005). Some of the claims explore teacher education preparations approach to inclusion with research on what teacher candidates learn, how they practice this knowledge in a practicum setting with cross-disciplinary methods of general education and special education, and their student's knowledge achievement during practicum.

There is compelling evidence that taking at least one course of special education or inclusive education can increase the attitudes of preservice teachers (Alghazo et al., 2003; Ambe, 2006; Bradshaw & Mundia, 2006; Shade & Stewart, 2001). Although, Ambe (2006) discovered that one course on diversity is not enough for the preservice teacher candidates to understand and appreciate these students and a joint effort between instructors and preservice teacher candidates should be implemented. Bradshaw and Mundia (2006) revealed that completing at least one course that exposes the preservice teachers to special education in an inclusive setting, can help them to have a more positive attitude toward inclusion.

Alghazo et al., (2003) learned that the educational background of preservice teacher candidates could have an effect on attitudes toward students with disabilities and that taking one

class could help create a more positive attitude toward these special needs students. Shade and Stewart's (2001) study on preservice teachers also realized that even a single course could benefit the attitudes toward inclusion of students with a disability in a general education classroom.

Several studies have examined preservice teachers' apprehension about teaching in an inclusive setting (Brownlee & Carrington, 2000; Valentin, 2006). Many preservice educators enter the teacher education programs with very little experience with students that have disabilities. These preservice educator candidates are influenced by their past educational experiences and how they perceive and define disabilities (Brownlee & Carrington, 2000). It is through their education programs that preservice teachers have an opportunity to develop a greater understanding of diversity, as well as, share in various learning experiences that foster the awareness of diversity and diversity issues (Valentin, 2006).

Teacher education programs face the challenge of preparing preservice teacher candidates to teach in an inclusion classroom that many of these preservice teacher candidates have never experienced in their own educational background (Richards & Clough, 2004). In the study by Richards and Clough (2004) two issues in preparing preservice teacher candidates for an inclusion setting were found: university-based training and the inclusive philosophy of the placement school. They also discovered that preservice teacher candidates are aware of their lack of preparedness for an inclusion setting. There seems to be little research on how elementary preservice teacher candidates learn to include students with special needs in their classrooms (Hamre & Oyler, 2004).

Research identifies several needs concerning teacher education programs. Some of these needs are: the preparation of preservice teachers to meet the challenges of an inclusion setting;

the perceptions and attitudes of preservice teachers toward inclusion, and the ability of teacher candidates to change to a more positive aspect (Forlin et al., 2009; Shippen et al., 2005).

As a result of changes in the educational service delivery paradigm, teacher preparation programs must consider how to better train preservice teachers, both general and special educators, with necessary strategies to serve students with disabilities in the general education classroom (Shippen et al., 2005). According to Forlin et al. (2009) teacher education programs must recognize their responsibility to prepare teachers who have the knowledge, skills, and attitudes, along with the confidence to be more proactive in promoting diversity in schools.

Field Experience

One way to increase preservice teachers' level of knowledge about special education students and help them be less anxious about including students with disabilities in their classrooms, could be to add a field experience component to the introductory special education course taught in colleges (Campbell et al., 2003; Richards & Clough, 2004). This field experience component would help the preservice teacher candidates to interact with students with disabilities in their natural environment, with emphasis just on these students and not on a whole general education class. Field experience, along with the coursework, could help these preservice teachers prepare themselves to work with special needs children in their general education classrooms. In addition, they would have more ownership for these students while experiencing less anxiety.

Richards and Clough's (2004) study detected that most preservice teachers think they are ready for an inclusive classroom until they actually start teaching and then find they are lacking the skills needed for all students to be successful. They go on to say that field experience could

help the preservice teachers feel a more personal contact with students with disabilities, and in turn that exposure could help them to include students with disabilities in their classrooms.

Peebles (2012) discovered in her dissertation thesis, that most preservice teachers did not have the skills or prior knowledge needed to be successful inclusion teachers. Her study of preservice teacher candidates (n=141) in Canada, compared three results: after completing a pre-test, then ten weeks of coursework, and lastly, three weeks of field experience, the participants scored much higher on instrumentation scores on inclusion teacher-efficacy after receiving the coursework and field experience.

According to Campbell et al. (2003) preservice teacher candidates typically see more value in their field experiences than their university coursework, yet direct contact with these special students does not necessarily lead to change in perceptions, dispositions, or attitudes. Methodology could play a factor in changing preservice teachers' perceptions, dispositions, or attitudes, especially, those preservice teachers that are more resistant to change. Even though preservice teacher candidates' attitudes are more resistant to change, field experience with students with disabilities in an inclusive setting can directly change these attitudes and help the candidate feel more in control (Ng, Nicholas, & Williams, 2010).

By using a set of pedagogical techniques, teacher education programs could help these preservice teacher candidates' link knowledge, theories, and practices using a variety of formats. These formats could include narrative literature-based cases and hypermedia cases, which have been shown to have success in preparing the preservice teacher candidates for teaching in an inclusion classroom (Boling, 2009). Furthermore, by linking case methodology to students' narrative ways of knowing, teacher education can create a context that encourages them to reflect upon and hopefully alter their prior dispositions and beliefs (Boling, 2009).

Brownlee and Carrington (2000) discovered that preservice teacher candidates need to concentrate on their experiences and determine if these experiences can sway their beliefs and attitudes toward students with disabilities. They go on to say that changes in attitudes can only take place when preservice teacher candidates take the opportunities to evaluate their beliefs from their field experiences. This can also help the preservice teacher candidate grow professionally and be more prepared for an inclusive setting. Other ways to change teacher education programs to meet the needs of all learners that are equally important should also be considered. Dual certification could be one of those considerations.

Dual Certification

Dual certification could be an important way to increase training, giving exposure to specific situations, skills, and knowledge of specific interventions to help general education teachers meet the needs of all learners. According to Jenkins et al. (2002), dual certification is a program that unifies the disciplines of regular education and special education to create a pool of educators qualified for an inclusive setting. The problem seems to be that general education teachers have more content knowledge and special education teachers have more skills adapting and accommodating students with disabilities. A program that unifies the two disciplines and creates a pool of educators qualified to provide students with a quality education in an inclusive setting may be a better approach (Jenkins et al., 2002). K-12 schools should be moving to more direct services given in the general classroom setting instead of a separate special education classroom. The goal of dual certification would be to prepare preservice teachers to embrace the importance of educating students with disabilities by the time they complete their teacher education program (Ford et al., 2001).

The few studies that have been conducted uncovered that dual training in both general education and special education may produce classroom teachers who are more capable and willing to serve students with disabilities in the general education classroom (Ford et al., 2001; Hadadian & Chiang, 2007; Jenkins et al., 2002; Shippen et al., 2005). The study by Hadadian and Chiang (2007) disclosed that the field experience component did not change the preservice teachers' attitudes toward students with a disability, but taking courses in special education helped the preservice teacher to have more positive attitudes toward inclusion and special education students in general. Their recommendation is for general education teachers to take special education courses along with the elementary curriculum.

The study by Shippen et al. (2005) attained that an introductory class in special education could change the attitudes of both preservice teachers and special educators and that a dual certification leads these preservice teachers more open and less concerned about teaching in an inclusive classroom. Jenkins et al. (2002) discovered in their study that dual certification worked in their cohort group and that the cohort group recommended that more integration between special education and general education could add the practice they need in the program and that extending the program past the required two years could also make a difference.

The study by Ford et al. (2001) identified that a collaborative program could work for future teacher education graduates. Expectations of this collaborative program would be dedicated to the academic development of all learners; would help candidates understand the different disabilities beyond the label; appreciate "what is going on with the learner;" make reasonable accommodations per the IEP; be ready to work in an inclusive classroom; collaborate as needed; and understand the political, social, and historical aspects of special education in the districts in which they work.

Although a “unified” teacher preparation program could be ideal, expanding the program design to include meeting both guidelines has many barriers: cost, disincentives to extend the length and requirements of the undergraduate program, along with both the human and institutional resistance to changes that are involved (Van Laarhoven et al., 2007). Due to the increased number of students in special education and the awareness of inclusion, general education teacher training programs and preservice teacher candidates should provide an infusion of content to prepare these preservice teachers for an inclusion setting (Cook, 2002).

It is assumed that a variety of courses and credentials are needed to teach students with disabilities. This limits the amount of teachers who feel they are qualified to teach students with disabilities because they feel they do not have the knowledge or skills to work with these types of students (Young, 2008). This could add to the perception that only special education teachers can work with students that have special needs.

Cook (2002) examined the infusion of special education content and general education seminar courses on preservice teacher candidates. He decided that attitudes differ depending on the disability category of the student and that preservice teacher candidates do not feel prepared to teach in an inclusive setting.

Infusing one or two special education courses or field experience with special needs students has not been reliable and is not enough to prepare preservice teacher candidates for an inclusive classroom (Strayton & McCollum, 2002). Strayton and McCollum (2002) discovered that one way to infuse general education and special education into the curriculum would be to have courses taught by faculty from special education and general education and that the field experiences be supervised jointly.

Because teachers set the mood for today's classrooms, the success or failure of inclusion could depend not only the training they receive, but on their attitudes as they interact with students, including those with disabilities, in their classroom.

Preservice Teachers' Attitudes and Perceptions on Inclusion

Preservice teachers enter the field of education with preconceived ideas about inclusion based on prior experience and modeling from previous teachers from their k-12 experience. This prior experience and modeling can create a variety of values and attitudes about issues in the field of education. This in turn can influence attitudes toward inclusion and students with disabilities in general (Mintz, 2007). Mintz realized that preservice teachers are not aware of these attitudes until they are faced with specific issues in the classroom.

Research on preservice teacher candidates' perceptions of inclusion has been mixed (Bradshaw & Mundia, 2006; Carroll, Forlin, & Jobling, 2003; Garriott, Miller, & Snyder, 2003; Jobling & Moni, 2004; Loreman, Sharma, Forlin & Earle, 2005; Mintz, 2007; Sharma, Forlin, & Loreman, 2008). The study by Mintz (2007) indicates that preservice teacher candidates' attitudes toward inclusion were somewhat positive and fluid with changes during the different courses taken in their education program. The author also reports that the initial teacher education training is critical in developing an inclusive setting that is in sync with the individual needs of students in a diverse population.

Bradshaw and Mundia (2006) and Forlin et al. (2012) suggests that attitudes can vary and that special education teachers are more positive in their attitudes when working with special needs students, but that it is critical that teacher education programs provide appropriate occasions for preservice teacher candidates to develop a personal philosophy that promotes the support and achievement of all learners. Campbell et al. (2003) and Garriott et al., (2003) both

determined that preservice teacher candidates' attitudes and perceptions toward students with disabilities were more positive after taking university coursework.

Loreman et al., (2005) revealed in their study of the attitudes of preservice teachers, that preservice training is the most advantageous time to change negative attitudes toward students with disabilities. Ahsan, Sharma, and Deppeler (2012) and Jobling and Moni (2004) discovered that measuring the perceptions that preservice teachers bring to the classroom about diverse students is a starting point for designing curricula that prepares them to provide effective classroom instruction to these diverse students in an inclusive general education setting.

According to Carroll et al. (2003) when preservice teacher candidates interacted with students with disabilities they felt more consideration, less pity, and more comfortable in being themselves. They also reveal that participating in courses helped preservice teachers grow in knowledge, maturity, and confidence while working with students with disabilities.

Sharma, Forlin, and Loreman (2008) realized in their study that for preservice teachers to be good inclusion teachers with positive attitudes, they have to feel comfortable working with students that have disabilities and understand the philosophy of inclusion. Having direct contact with these types of students can have a positive impact on preservice teacher candidates toward inclusion. The researchers found that we have to address all concerns that preservice teacher candidates have about inclusion during their teacher education programs.

Some studies show a concern by preservice teacher candidates toward inclusion (Bradshaw & Mundia, 2006; Loreman et al., 2005). Loreman et al., (2005) specify in their study that preservice teacher candidates are concerned about inclusion and doubt their judgment when interacting with students that have disabilities. They go on to report that their undergraduate

teacher program may be the appropriate time to address these concerns and, hopefully, change the negative attitudes about inclusion.

Bradshaw and Mundia (2006) denote in their study that preservice teachers are concerned about the inclusive classroom and their attitudes toward inclusion could affect their teaching. The findings from the research showed that even one course of special education or an inclusion course could change the preservice teacher's attitudes and make them feel that they could engage all the participants in the diverse classroom. Looking at teacher education program positions on inclusion is another issue to survey.

Along with all the changes for inclusion, there are also expanded responsibilities for the general education teacher and some studies, like the one that follows, shows they may not have the disposition, attitude, or professional preparation to meet these expanded responsibilities. Although professional development for in-service teachers remains a prominent approach to preparing for inclusion, increased emphasis has been placed on teacher preparation programs to prepare new educators for teaching in inclusive settings (Van Laarhoven et al., 2007). Malinen, Savoainen, and Xu (2012) concluded from their study of in-service teachers (n=451), that the most critical practical concern about teaching an inclusive classroom may not be the pedagogical approach used, nor the managing of student behavior, but instead a lack of efficacy in collaborating with other teachers, parents, and professionals, required for an inclusive setting. Savoainen, Engelbrect, Nel, and Malinen (2012) studied in-service teachers in South Africa (n=319) and Finland (n=822) and discovered that self-efficacy in collaborating with teachers, parents, and professionals could be the best predictor of attitudes and that teacher education should place more emphasis on collaboration, along with pedagogy and behavior management skills.

Although preservice teachers feel that they have limited or no training in special education and feel unprepared to work with students with disabilities. Cook, Tankersley, Cook, and Landrum (2000) suggested that if these preservice teachers are exposed to diverse populations and are taught the strategies and interventions that are successful with these students, they will have a more optimistic and positive attitude toward inclusion. Another factor that can strongly influence the teachers' attitude toward having special needs students in a general classroom setting is the nature and severity of the student's disability, which can also relate to how well that teacher was trained for this type of student (Loreman et al., 2007).

Campbell et al., (2003) argued that teachers' attitudes could be affected by the level of disabilities of the students in their general education classrooms and these attitudes could correlate with actual classroom practice, although the reasoning behind this is not clear. Symeonidou and Phtiaka (2009) believe that teachers feel that inclusion is not for all students and that putting students in an inclusive classroom could be more for socialization and not academic achievement which could be a benefit for some students with more severe disabilities. Students that have more severe disabilities are being included in a full inclusion classroom more and more each year, increasing by 3.6% from 1989 to 1996 (Cook, 2002).

Teacher education programs are in a position to ensure that preservice teacher candidates acquire the knowledge, skills, dispositions, and performances needed to be successful in meeting the needs of all students (Johnson & Hawkins, 2008). In many cases, teachers set the attitude for classrooms. For this reason, students' achievements may well depend upon the widespread attitudes and perceptions of teachers as they interact with students with disabilities (Larson, 2006).

Sobel and Taylor (2005) stated that preservice teacher candidates are placed in situations where they must teach in ways not only contradictory to their educational preparation, but with students who differ from them in language, culture, and experiences. They thought it could be argued that preservice teacher candidates could say that some teacher education programs give too much attention to theory and not enough to the skills needed to teach students in an inclusive setting. This includes real-world experiences, explicit modeling, as well as, demonstrations on how to accommodate instruction for diverse learners.

These preservice teacher candidates leave their teacher preparation program with an understanding of the autonomous purposes of education, learning theory, a curricular vision, and a basic repertoire of teaching strategies (Johnson & Hawkins, 2008), yet, the preservice teacher candidate often needs support drawing on this foundational knowledge to plan and carry out the curriculum within their classrooms (Liston et al., 2006).

Although there is no doubt about the usefulness of investigating the attitudes and perceptions of preservice teacher candidates, we must also be familiar with the reality of these attitudes and perceptions. These perceptions and attitudes are being formed in the teacher education experiences and from their own beliefs formed from experiences they had as students (Sze, 2009). Sze also maintains that teachers who feel negatively toward special needs children or have not been properly trained in the skills and strategies needed to teach these children, are less likely to be successful. Her study noted that one of the most significant predictors of having a successful inclusive classroom is the attitudes of the teachers toward students with disabilities and recognition of interactions can affect the educational progress of their students. She reported that preservice teacher courses in special education can be beneficial by enhancing comfort or confidence levels when teaching students with disabilities.

Prior experience of teacher candidates' own educational backgrounds continues right through their teacher education program and into their teaching profession. This belief can also impact the relationship they have with their students. Preservice teachers feel that the relationships with students with disabilities should be similar to the relationship they had with their own teachers (Fajet et al., 2005). Fajet et al., (2005) study recommended that preservice teacher candidates' perceptions and belief systems should be explored before entering teacher education programs because their findings showed that there was greater emphasis on their own personal uniqueness and less emphasis on pedagogical training.

Silverman (2007) maintained in his study that there were important correlations between epistemological beliefs and positive attitudes which can influence the preservice teachers' behavior toward students with disabilities and their success in the general education setting. Although preservice teacher candidates' attitudes, positive or negative, are shaped by our experiences and could have been molded during our own childhood and school experiences, providing these preservice teacher candidates the skills and experiences needed to be successful in an inclusive classroom is very important (Garriott, et al., 2004).

Preservice teacher perspectives are strong predictors of their success in an inclusive classroom. Increasing confidence levels is one way to create more positive attitudes and increase overall success.

Confidence Levels and Self-Efficacy of Preservice Teachers

Confidence levels have been shown to increase with training, exposure to specific situations, and knowledge utilizing explicit interventions; this can work with a general education teacher, as well as, a special education teacher (Jung, 2007). Preservice teachers are found to

have higher confidence levels in applying best practices in inclusion with courses and field experience that deal with students with disabilities (Loreman, et al., 2005*)*.

Preservice teacher candidates feel that they are not prepared to deal with special needs students and this can affect their confidence levels. Jobling and Moni (2004) contribute this lack of confidence to lack of experience in developing strategies during their teacher education programs. Teacher education programs need to be developing new programs that help preservice students learn strategies for use in diverse classrooms and this will help preservice teacher candidates have more confidence to meet the challenges of a diverse classroom. Understanding the theory of self-efficacy can also help preservice teacher candidates to have more confidence in an inclusion setting.

Self-efficacy is a theory proposed by Albert Bandura (1977) and refers to an individual's judgment on observing and modeling the behaviors, attitudes, and emotional reactions of others.

Bandura (1977) states:

> Learning would be exceedingly laborious, not to mention hazardous, if people had to rely solely on the effects of their own actions to inform them what to do. Fortunately, most human behavior is learned observationally through modeling: from observing others one forms an idea of how new behaviors are performed, and on later occasions this coded information serves as a guide for action (p. 22).

Hoy (2000) stated that Bandura's theory of self-efficacy is more conforming during the years of education training and could be very significant during the long term development of teacher self-efficacy. She stated that the best time to develop teacher self-efficacy is during the preservice teacher candidates' field experiences, especially during student teaching. This could

be due to the fact that before student teaching, preservice teachers have a low sense of self-efficacy and a pessimistic view of students' motivation.

Low self-efficacy could lead to student teachers and first year teachers not having control of their classroom creating a gap between what they expected of themselves and what is actually happening in the classroom, thereby lowering their principles to compensate for the gap between outstanding teaching and their self-perceptions of teaching capability. Hoy (2000) reported in her completed research that during student teaching self-efficacy was very high and lower during the first year of teaching with the lack of support. Education programs have to find a way to create a high level of self-efficacy during preservice teacher candidates field experiences because once these preservice teacher candidates graduate and have their own classroom, beliefs and self-efficacy are more resilient to change.

Palmer (2006) indicated that self-efficacy is a predictor of performance, as in people with low self-efficacy will avoid an activity with which they have difficulty, while people with high self-efficacy will make more energetic labors and will be more likely to complete the activity with success. He goes on to say that his study revealed that preservice teachers self-efficacy was increased when they took a methods course (this study was with a science course) and had the opportunity to teach during practicum.

Teacher Attitudes and Self-Efficacy

Teachers today must understand that their actions in the classroom can result in negative actions toward students with disabilities and that they alone have the choice to make decisions that can affect their own attitudes, which will result in a more positive student outcome (Berry, 2008; Berry 2010; Campbell et al., 2003; Sze, 2009). Berry (2008; 2010) believes that general education teachers should have the beliefs, attitudes, skills, and temperament that helps these

teachers be positive, successful teachers in classrooms with different academic abilities and levels, including those classrooms with special needs students. He goes on to say that general education teachers that have positive attitudes toward inclusion are less anxious about issues of fairness than general education teachers who have a negative attitude toward inclusion. These negative attitudes can also affect those students without disabilities, due to the fact that the teacher has concerns about the demands for their attention from students with disabilities.

Campbell et al. (2003) results showed that general education teachers had lower levels of self-efficacy, ability, and understanding toward inclusion of students with disabilities and felt a greater need for in-service training, supports, and resources than special education teachers. General educators may say that they are supportive and welcome an inclusive classroom, but have a hard time dealing with the full range of disabilities found in diverse classrooms (Bradshaw, 2003).

Sari, Ceikoz, and Secer (2009) discovered that one of the most important issues in the success of an inclusive classroom is the teacher's attitude and that these attitudes can be influenced by several variables, such as: student age, severity of disability, level of the disability, and level of supports needed. They also concurred that the attitudes of preservice teachers were better than those of general education teachers. They also reported that the self-efficacy perceptions of preservice teacher candidates are high because they regard themselves as being effective teachers before they actually enter the field.

Freytag (2001) believes there are two different types of self-efficacy: teaching efficacy, which is the global belief that teachers can influence student learning and achievement, and personal teaching efficacy, which is the teacher's own self-confidence in their ability to teach. The results of her study determined that self-efficacy can be influenced by the number of classes

on inclusion taken during their undergraduate teacher program, and can relate to special education teachers having a higher overall self-efficacy in both teaching efficacy and personal teaching efficacy. Her suggestion is to restructure the teacher education programs to include more classes that teach strategies for inclusive classrooms and that will in turn increase self-efficacy and produce better quality teachers.

Summary

Today, according to Hadadian and Chiang (2007) inclusion of children with disabilities in the general education classroom has progressed from a theoretical argument to widespread phenomena. Underlying the process of inclusion is the assumption that the general education classroom teacher has a certain amount of knowledge about special education, students with special needs, teaching techniques, and curriculum strategies, which help them to be confident in an inclusive setting. Exposure to students with disabilities and related concepts, strategies, and practices in the field will help preservice teachers be more prepared for an inclusive setting, change attitudes toward inclusion, increase confidence levels and raise self-efficacy.

Many teacher education programs still use the model of separation between elementary, secondary, and special education. There is no integration of materials or field experience for the transdisciplinary nature of today's educational setting (Carroll, et al., 2003). Teachers have a pivotal role in creating an environment that is inclusive for all students. Little research has been done on redesigning teacher education programs to facilitate more positive interactions with students in an inclusive setting.

This study will assist in discovering if preservice teacher candidates are prepared to teach in an inclusion setting and if their perceptions/attitudes and self-efficacy differ from the teacher education program to their first year of teaching. This research could provide additional

evidence of the correlation between attitude and self-efficacy and could be used in teacher education programs to better prepare candidates to be effective teaches for all students.

The following chapter 3 contains information on the proposed participants, the research design, the instrumentation, the procedures for collecting, and the findings of this research.

CHAPTER 3

Methodology

Introduction

Research indicates teachers feel that they are not prepared to teach students with a disability in an inclusive classroom (Alghazo et al., 2003; Ambe, 2006; Berry, 2006; Bradshaw & Mundia, 2006; Shade & Stewart, 2001). In this study, I used survey results to examine senior preservice teacher candidates' attitudes, perceptions, and self-efficacy toward inclusion and how those attitudes and perceptions toward inclusion may differ from teachers in their first year of teaching.

This chapter includes the methodology used for this study. The main sections of this chapter are: research design, research questions/hypothesis, participants/subjects, instrumentation, procedures, and data analysis. The design of study section describes the research design utilized for this study. The research questions include a detailed description of the hypotheses. The participants section describes the participants and how the samples were created for this study. The instrumentation section outlines and describes the two surveys used in this study, and how these surveys were created including the psychometric information. The procedures section of the study will explain the process to complete the research design. The data analysis section describes the procedures used in the analysis of data.

Research Design

The study was a quantitative cross sectional study of preservice teacher candidates and first year teachers using survey data. I compared groups for possible differences in preservice teachers' perceptions, attitudes, and self-efficacy toward inclusion and the increase or decline of teacher-efficacy as they become first year teachers.

This study added to the current literature by providing comparison data on the two levels of teachers: preservice teacher candidates and first year teachers, which has not been studied before. Knowing more about how these groups differ may help to inform teacher education programs in ways to prepare preservice teachers as they make the transition to their first year of teaching. This quantitative cross sectional study was to determine if there were differences among survey data of the two groups; preservice teacher candidates and first year teachers. This study included the level of the teacher (preservice teacher candidate and first year teachers) as the independent variable and the survey scores of the *SACIE-R* and *TEIP* were used as the dependent variable.

Research Questions/Hypothesis

This quantitative cross sectional study addressed the differences between preservice teacher candidates and first year teachers, perceptions of preparedness and responses to thoughts of teacher efficacy concerning the preparation and ability to teach in an inclusion classroom. This study was designed to answer the following research questions and hypotheses:

Research question: Is there a difference in mean scores between preservice teacher candidates and first year teachers on instrumentation scores measuring inclusion self-efficacy and teacher efficacy?

Hypothesis 1: There is no difference in mean survey scores for level of teacher compared to the reported population parameter for the instruments.

Hypothesis 2: There is no significant relationship between teacher attitudes and perceptions and teacher self-efficacy scores.

Hypothesis 3: There is no significant difference in mean scores on *SACIE-R* by level of teacher.

Hypothesis 4: There is no significant difference in mean scores on *TEIP* by level of teacher.

Participants

The sample participants used for this study were senior preservice teacher candidates in the area of elementary education and secondary education, and first year teachers that were graduates of a four-year public research institution in the southeastern United States. I used the convenience sampling method for choosing participants for this study. The participants consisted of women and men, minimum age of 21, and different ethnicities and socioeconomic groups. The participants (n = 40; 31 Elementary education teachers, 9 Secondary education teachers) consisted of senior preservice teacher candidates in the 2012-2013 academic school year and first year teachers (n=51) from the graduating teacher education class of the 2011-2012 academic school year.

Instruments

The sentiments, attitudes, and concerns inventory.

The Sentiments, Attitudes, and Concerns about Inclusion Education Revised (Forlin et al., 2011; SACIE-R) measures preservice teachers' perceptions on three constructs of inclusive education. The *SACIE-R* includes a demographic section which is comprised of six independent variables: gender, age, highest qualification obtained, prior contact with individuals with a disability, previous training in the area of students with disabilities, and if they have experience

teaching students with disabilities (Forlin et al., 2009). The second portion of the instrument is a 4-point Likert scale which allows the participants to respond either positively or negatively to the questions (e.g., I am concerned that students with disabilities will not be accepted by the rest of the class; I am concerned that it will be difficult to give appropriate attention to all students in an inclusion classroom) from Strongly Disagree to Strongly Agree: (Strongly Disagree, Disagree, Agree, Strongly Agree). These items pertain to inclusive education that can involve students with a range of disabilities while learning with their age appropriate peers in general education classes.

The three psychometric constructs or factors acknowledged in the *SACIE-R* scale are relevant to aspects underlying a teacher's beliefs and support of inclusive education (Loreman et al., 2007). Appendix B outlines the scales for each instrument used. The first construct is the sentiments scale, which represents the teacher's sense of teaching efficacy. Next, is the attitudes scale, which represents teacher's attitudes toward increased inclusion of students with disabilities in their classrooms. And finally, is the concerns scale, which represents the teacher's willingness and ability to adapt one's teaching to meet the educational needs of students with disabilities (Loreman et al., 2007).

The total score for the three factors has a reported reliability at .85 (Forlin et al., 2011). The subscales indicated reliabilities as sentiments (.86), attitudes (.70), and concerns (.85). The whole-scale reliability is acceptable at .85 due to the high level of inter-item consistency between the factors of sentiments and concerns.

The Sentiments, Attitudes, and Concerns about Inclusive Education (Loreman et al., 2007; SACIE) was created using factor analysis of three previous scales using (n = 996) preservice teachers from five institutions. An expert panel, consisting of senior academics and

researchers, performed the analysis to create the *SACIE* by identifying the three factors used in the instrument. The final development of *The Sentiments, Attitudes, and Concerns about Inclusive Education Revised* (Forlin et al., 2011; SACIE-R) that was used in this study was validated using a four-stage process: Stage 1 was the initial review and consisted of a sample of (n = 297) preservice teachers from four institutions in three countries (Canada, Australia, & Singapore) and the province of Hong Kong; Stage 2 was testing of the refined scale which included the reduction from 19 to 15 items and used a different population sample of (n = 227) preservice teachers from three institutions in Hong Kong, Australia, and Singapore; Stage 3 consisted of a revision and further testing of 186 preservice teachers from Canada and Hong Kong; and Stage 4 was the final validation using the 15-item, three-factor scale using (n = 542) preservice teachers from 9 institutions and four countries.

In this SACIE-R validation study, the reliability coefficients (Cronbach's alpha) resulted in the subscales of Sentiments (.75), attitudes (.67), and concerns (.65) with a combined scale (.74) which is acceptable. My study's reliability coefficients (Cronbach's alpha) resulted in the subscales of Sentiments (.65), attitudes (.63), and concerns (.68) with a combined scare (.78). My study is similar in the overall alpha for the scales for the SACIE-R Instrument. Other studies of preservice teachers using the SACIE scale before revision, was also similar to the original study and this study. The studies by Peebles (2012) and Forlin et al., (2010) had overall Cronbach's alphas of .69 and .72. The original *SACIE* scale (Forlin et al., 2007) used a demographic statement left off the revised scale. All other factors used to determine self-efficacy of inclusion are the same.

T.J. Loreman, primary author, granted permission through personal communication on October 27, 2010 (see Appendix C), and was consulted in regard to the fit of this scale to the

research. It was determined that the design and content of the scale was a match for the research in this study.

Teacher Efficacy for Inclusive Practice (TEIP) Scale.

The *Teacher Efficacy for Inclusive Practice Scale* (Sharma et al., 2012; TEIP) measures perceived teacher efficacy to teach in an inclusive classroom. The TEIP consists of 18 items which denotes three factors. The three factors (Appendix B) are: efficacy in using inclusive instruction, efficacy in collaboration, and efficacy in dealing with disruptive behaviors (Sharma et al., 2012). The first factor, Efficacy in using inclusive instruction, measures individual perceptions of their teaching efficacy in using inclusion instruction in their classrooms. The second factor, Efficacy in collaboration, measures the individual's perceptions of teacher efficacy in working with parents and other professionals. And the third factor, Efficacy in managing behavior, measures self-perceptions of teaching efficacy in dealing with disruptive behaviors. Using a 6-point Likert scale, the participants will answer questions (e.g., I can make my expectations clear about student behavior; I can accurately gauge student comprehension of what I have taught) from 1 to 6; (1, strongly disagree; 2, disagree; 3 disagree somewhat; 4, agree somewhat; 5, agree; 6, strongly agree). These subscales can be found in instrument under Appendix A.

The alpha coefficient for the total scale was .89 (Sharma et al., 2012). The alpha coefficient for the three subscales is efficacy to use inclusive instructions (.93), efficacy in collaboration (.85), and efficacy in managing behavior (.85). Internal reliability analysis for the total scale suggested that the scale is a reliable measure of pre-service teacher perceptions of self-efficacy for inclusion across different countries. From my research the alpha coefficient for

the three subscales is efficacy to use inclusion (.83), Efficacy in collaboration (.75), and efficacy in managing behavior (.84). The alpha coefficient for the total scale was .92.

Other studies confirmed the results of my study and the instrument scale results of the TEIP (Ahsan et al., 2012; Forlin et al., 2010; Malinen et al., 2012; Peebles, 2012). These studies determined total scale Cronbach alpha's of .85, .90, .91, and .93 which signifies a very strong reliability among the scales of this instrument, with numbers close to 1.00 (Cronk, 2010).

This instrument was created using an exploratory factor analysis on 26 items to establish the factors (Sharma et al., 2012). The 18-item scale was developed from a sample of (n = 609) preservice teachers selected from three countries (Australia, Canada, and India) and the province of Hong Kong. Inter-correlations between items were used to identify any items that were highly correlated (>.80) and items were deleted that had a low correlation (<.30). Items that loaded on more than one factor were deleted and the remaining three factors accounted for 64.5% of the variance. The primary author of the TEIP scale, Umesh Sharma, granted permission for using this scale by email on November 10, 2010.

Procedures

I was granted approval from my dissertation committee on September 12, 2012, and the Institutional Review Board (IRB) on September 24, 2012, for the preservice teacher candidates from the undergraduate class at The University of Mississippi and first year teachers who graduated from The University of Mississippi in May, 2012, to voluntarily complete *The Sentiments, Attitudes and Concerns about Inclusion Education Revised Scale* (Forlin et al., 2011; SACIE-R) and the *Teacher Efficacy for Inclusive Practice Scale* (Sharma et al., 2012; TEIP).

To compare the results from two levels of teachers, preservice teacher candidates and first year teachers, two different groups were contacted to voluntarily participate in this study. I recruited forty senior student teacher candidates from the Teacher Education program of The University of Mississippi for the preservice teacher candidate participants of this research project. Recruitment began by contacting university supervisors of preservice teacher candidates at The University of Mississippi. After university supervisors agreed to recruit students for the study, I conducted one-on-one training on how to administer the instruments (SACIE-R and TEIP) to preservice teacher candidates at their student teaching placement to those supervisors on the main campus and sent letters with instructions to supervisors off campus. Once trained, the supervisors were given coded packets for each participant included in the study. The packet included an overview of the research project which included IRB approval, and a brief description of each instrument, along with a copy of each instrument used for this research project. Each packet was coded using a label with a code, E-1 to E-31 for elementary student teacher candidates and S-1 to S-9 for secondary student teacher candidates. The labels, and all identifying information, were removed before being returned to me. These codes were aligned to a primary list of the 2012-2013 student teachers (elementary and secondary) that graduated in December 2012. The completed instruments were collected and returned to me, minus the label, in the sealed envelope. This data was locked in a filing cabinet in my office. I checked off each packet from the primary list of codes by university supervisor, and then destroyed the list to assure confidentiality. I sent follow-up emails to the supervisors to remind them of the final collection date of November 1, 2012. When I did not receive a coded packet back by that date, I sent another email. I did not receive nine packets from the elementary supervisors.

I recruited participants from first year teachers that graduated from The University of Mississippi in May 2012, with a degree in elementary or secondary education, by email. Recruitment consisted of emailing first year teachers with an introduction and a brief explanation of the study. I sent a follow-up email every two weeks for a total of three times. I had fifty-one completed responses to the emailed version of the surveys.

Participant's response to the email which included completion of both instruments, (SACIE-R and TEIP) indicated their agreement to participate. Qualtrics (Qualtrics, Provo, UT) a web-based survey tool available through The University of Mississippi was used to collect the data. Qualtrics automatically generated an ID which is associated with every survey response. These codes are a random combination of letters and numbers generated by Qualtrics in connection with each distinct response, and no response ID is given until the response has been submitted. I gave the participants a deadline of two weeks for completion. Using my master list of non-responses from Qualtrics, the participants that failed to complete the survey on deadline, were sent a reminder by email and an explanation of the importance of their contribution is to this study. After two weeks with no response, I sent another email as a reminder (Dillman, 2007). After sending three emails with no response, I was unable to use those participants for this study.

After collection of the surveys from both student teacher candidates and first year teachers, and before data entry, I opened packets and checked online survey results for completion. The original research packets have been retained in a locked filing cabinet in my office until the research project was completed, and then destroyed via a shredder.

Data Analysis

This quantitative cross sectional research was used to determine if there were differences among survey data of two groups; preservice teacher candidates and first year teachers. After collecting all the survey data from each of the student teacher supervisors for elementary and secondary preservice teacher candidates, and survey data from first year teachers through electronic means, inferential statistics were used to answer the research question and address the hypotheses.

An important aspect to consider in my research was the sample size, power, and effect size. Sample size, statistical power, and effect size was determined *a priori* to research and is discussed in the results of chapter four. Power of a statistical test is the likelihood of finding a significant difference when a difference in fact exists (Cohen, 1988). Power is important because a useful test would be one that, with a high probability, correctly rejects the null hypothesis. One that does this has high power, and the results of the experiment can be supported.

Effect size is a way of taking your statistic and calculating the typical effect of the differences between two groups, and can have a benefit over tests of statistical significance only (Coe, 2002). The size of the effect emphasizes the size of the difference, or the standardized mean difference between two groups. Changes in effect size can directly affect statistical power (Balkin & Sheperis, 2011).

To establish the sample size, power, and effect size *a priori* for this research project, I used the software program, *G*Power* to calculate these measures. According to Balkin and Sheperis (2011) this analysis is measured by considering the preferred effect size to determine statistical difference, the alpha level determined for the study, the preferred amount of power for the study, and the number of groups used in the study. Based on these recommended

calculations, a medium effect size of .25, an alpha of .10 (.05 for both tests), a power of .80, and the sample size needed is 128 participants. My sample size of 91 was 28.9% less than needed. Including the effect size in my research could be a contribution to the previously published research, which did not report effect size. Although the ANOVA showed that the means were significantly different for the TEIP scales, the effect size was small. Based on Cohen's (1988) interpretation, there was small or no effect size (<.2) between the groups.

After determining effect size, sample size, and power, the mean and standard deviation were calculated for this study. According to Gall, Gall, and Borg (2007) the measures of central tendency determine the mean, median, and mode, and the mean score will be used to compare groups for this study. Although, the mean score provides information on the average of the scores, the variability of the scores is also important.

Patten (2001) stated the standard deviations will provide information on how the scores differ, and how the scores differ by variability from the mean score. This information helped determine if the data was in normal range from previous research using the SACIE-R and TEIP, along with running normality plots, skewness, and kurtosis statistics.

The skewness showed the distribution of the data set and was used as a measure of symmetry, meaning the same amount on both sides of the center point or normally distributed. A skew that is positive will tail to the right, and a skew that is negative will tail to the left. Values outside the range of -2 to +2 are a sign of a considerable skewed distribution. All of my data was under 2.00 for a normal distribution. Kurtosis is a measure of whether data are peaked or flat relative to a normal distribution of the data. A peaked distribution would result in a positive value and a flat distribution will result in a negative value. My distribution was peaked and resulted in a positive value.

Before the data analysis, I compared the results of the mean scores to the published population parameters reported in previous studies to ensure that my population was not so different from the population used in previous studies. Comparing these results will satisfy Hypothesis 1 and will ensure that I can go forth with steps to complete the ANOVA for Hypothesis 2, Hypothesis 3, and Hypothesis 4.

After measuring the mean and standard deviation, a one-way analysis of variance (ANOVA) was used to compare preservice teacher candidate scores on both surveys to the first year teacher scores on both surveys. According to Urdan (2010) the purpose of a one-way ANOVA is to compare the means of two or more groups (the independent variables of preservice teacher candidate and first year teachers) on one dependent variable (survey scores). This determined if the groups were significantly different from each other, and answered the query as to the average quantity of difference or variance between scores of levels of teachers compared to the average variance within each group.

The steps of a one-way ANOVA: set α; set sample size; set hypothesis; collect data; create descriptive statistics of each group including graphical representation, means, and standard deviation; and compare the group means. These steps were accomplished using several procedures.

Several procedures were used to assist in comprehending, interpreting, and reporting of results. These procedures were completed before the analysis and helped distinguish, and rectify problems that ensured that my data met all the conditions of a multivariate analysis. The procedures included: graphical representation of the data; four-step process for identifying and evaluating missing data; identify and assess impact of outliers; test the assumptions of statistical analysis (Hair, Black, Babin, & Anderson, 2010).

The first procedure that I performed was a graphical examination of the data. These visual representations of the data helped me to understand the essential characteristics of each variable. These characteristics included the shape of the distribution, the relationships between variables, and group differences.

After graphical examination, I identified and evaluated missing data. Missing data can have an important impact on any analysis, especially those of a multivariate kind. Missing data can reduce the sample size and could cause bias. An aid to performing this procedure was to complete the following four-step process: step 1: determine the type of missing data; step 2: determine the extent of the missing data; step 3: identify the randomness of the missing data; step 4: determine approach for accommodating missing data (Hair et al., 2010). Any surveys with missing data were evaluated to determine if missing data could be replaced or data not used in the study. I deleted two surveys that were missing more than 10% of the data. For the remaining surveys, I used the mean substitution technique to replace missing data.

The next procedure was to identify and assess outliers of the data. The outliers are an atypical high or low values or a distinctive combination of values that are prominent from the other values. These outliers could be both helpful and provide information that would not be found in the usual analysis or be harmful by distorting the statistical tests. According to Hair et al. (2010) these outliers could be caused from procedural error (data entry error), as a result of an extraordinary event (unusual event such illness, death, etc.), as a result of extraordinary observations (a rare happening during data collection), and as a result of data falling into ordinary range, but are unique in their combination of values (these are used unless confirmation is available that disregards the outlier as a suitable member). There were no outliers in my data.

The final procedure was used to test the assumptions of a multivariate analysis. The use of analysis of variance (ANOVA) has three assumptions:

1. Normality – the use of an ANOVA, which is a parametric test, requires that all data sets be normally distributed. I will assess the normality assumption with a "goodness-of-fit" test.
2. Homogeneity – we expect the variances to be equal or error terms to be the same. I will test this using Levene's test.
3. Independence – required case independence, which means that the observations of each of the variables is independent of each other, but does not mean that the variables have to be independent of each other. My data collection method ensures independence for this study.

Any assumptions not met will change the Type 1 error rate and could either be higher or lower than alpha depending on the assumption violated. For example, if the population distribution is not normal, there will be very little effect on the Type 1 error rate. If the sample sizes are equal (and mine should have an equal number of elementary and secondary level of teacher), there should be no problem with homogeneity of variance and any effect on Type 1 error will be minimal. If the assumption of independence is not met, it means the groups are not independent of each other and the one-way ANOVA is not an appropriate statistic to use for this data. My data met all assumptions for ANOVA.

Summary

This section revealed the methodologies provided by Cohen (1988), Coe (2002), Gall et al. (2007), Patton (2001), Urdan (2010), and Hair et al. (2010) as a plan for the research study. The research procedures used for this quantitative cross-sectional study have been detailed in this

chapter and include IRB approval, participant consent and steps for gathering data. The instruments used for this study are discussed in detail, including how the scales were developed and validated. An overview of procedures that was used to determine sample size, power, and effect size were examined. The chapter concludes with the procedures used to analyze the surveys, including the steps for hypotheses testing, and a description of the statistical test that was used for this study, a one-way ANOVA.

CHAPTER 4

Results

The purpose of this quantitative cross sectional study was to concentrate on preservice teacher candidates' and first year teachers' perceptions of preparedness, and responses to thoughts of teacher efficacy concerning preparation and their ability to teach in an inclusion classroom. Chapter 4 examines the analysis from the data collected that concentrates on the one research question and four hypotheses that guide this study. This chapter also contains information concerning the participants of the study, the percentage of surveys returned, graphical analysis of the data, the examination and treatment of missing data, and the identity and assessment of outliers. Once this was completed, the instruments, *Sentiment, Attitudes, and Concerns about Inclusion Education* (SACIE-R) Revised Scale (Forlin et al., 2011) and *Teacher Efficacy for Inclusive Practice* (TEIP) Scale (Sharma et al., 2011), compared the scores across the two groups, including effect size. The negative items on the *SACIE-R* used reverse coding before analysis following the same procedures as carried out in the original study by Forlin et al. (2012). The chapter ends with a summary of the statistical analysis guided by the four hypotheses.

Research Questions/Hypothesis

The one research question and four hypotheses that guide this study are as follows:

Research question: Is there a difference in mean scores between preservice teacher candidates and first year teachers on instrumentation scores measuring inclusion self-efficacy and teacher efficacy?

Hypothesis 1: There is no difference in mean survey scores for level of teacher compared to the reported population parameter for the instruments.

Hypothesis 2: There is no significant relationship between teacher attitudes and perceptions and teacher self-efficacy scores.

Hypothesis 3: There is no significant difference in mean scores on *SACIE-R* by level of teacher.

Hypothesis 4: There is no significant difference in mean scores on *TEIP* by level of teacher.

Study Participants

Forty-six survey packets, which included elementary (n=37) and secondary (n=9) education majors, were given to University Supervisors to personally distribute to the student teacher candidates. Forty survey packets were returned (n=40; n=31 elementary; n=9 secondary) with a response rate of 86.9%. According to the Instructional Assessment Resources (2011) an acceptable response rate for this type of survey administration is anything greater than 50%. The response rate of 86.9% is well above the acceptable range.

One hundred and thirty-one surveys were emailed using the online software program Qualtrics (Qualtrics, Provo, UT). Of these, 56 surveys were attempted, with 51 surveys completed. This is a 37.5% response rate. The acceptable response rate for on-line surveys is 30% per the Instructional Assessment Resources (2011). Therefore the response rate of 37.5% is above the acceptable rate of return.

Coded survey packets were given to the university supervisors to hand deliver to the student teachers of each program of elementary (E1 - E31) and secondary (S1 - S9) education. On the outside envelope of each packet was a label with the student teachers name, school

placement, and university supervisor's name. After completion of the survey, the student teacher gave the packet back to the university supervisor, who removed the label before returning them to the researcher ensuring anonymity. After coding, the next step was a process for evaluating missing data from the surveys.

Missing Data

Missing data was identified and evaluated. There was no missing data from the surveys completed by the student teacher candidates. Missing data from the online surveys completed by the first year teachers was less than 10%. Hair et al. (2009) noted that missing data under 10% is acceptable if it occurs in a specific nonrandom manner.

Of the nine surveys with missing data, two were deleted and the seven were addressed using a mean substitution technique. This is the most common technique for handling missing data (Tabachnick & Fidell, 2007). Using the mean value from all data in the factor sample to represent the missing data is a very conservative strategy because the distribution of the mean as a whole does not change (Sheskin, 2011). All data was identified and evaluated including demographic data.

Demographic Data

Other demographic data was collected for examination which included grade level teaching and training, gender, age, highest level of education, interactions with a person with disabilities, level of training educating students with disabilities, knowledge of legislation and policy pertaining to students with disabilities, level of confidence in teaching students with disabilities, and level of experience teaching students with disabilities. Based on the demographic data gathered from the surveys, grade level teaching and training showed 5.3 % of

the surveys collected were in early childhood education, 61.1 % in elementary education, 29.5 % in secondary education, and 2.1% in special education.

Table 1 includes all participants surveyed including student teacher candidates and first year teachers. More elementary education majors (61.1%) participated, as shown in table 1, which was expected, due to the larger numbers of student teacher candidates and first year teachers in that category. Special education (2.1%) included only first year teachers since no special education student teacher candidates were included in this study. This could be due to the first year teachers accepting a job in the area of special education when their major is elementary or secondary education. Table 1 illustrates the percentage per teaching/training level:

Table 1: Grade Level Teaching/Training

Grade Level Teaching/Training	Frequency	Percent
Early Childhood	5	5.5
Elementary	59	64.8
Secondary	25	27.5
Special Education	2	2.2
N	91	100.0

Gender and age were other sections that were examined. The participants surveyed included student teacher candidates and first year teachers. The information collected shows that female participants were the largest group (n=76; 80%). According to the National Center for Educational Statistics (2011), 76% of teachers in the 2007-2008 school year were female. The highest percentage of student teacher candidates and first year teachers were 25 years of age or below.

The second part of the demographic sections deals with statements that involve special education and children with disabilities. The first statement "I have had significant/considerable interactions with a person with a disability" revealed the number of interactions with a person with a disability. Within this study 50 (54.9%) stated, yes; they had significant interactions with students who have a disability and 41 (45.1%) stated, no; they had not had significant interactions with students who have a disability**.**

The next demographic statement on the survey is "I have had the following level of training on educating students with disabilities." "None," was 12 (13.2%), "Some," with the highest percentage was 72 (79.1%), and the lowest percentage of "high level of training" was 7 (7.7%).

"My knowledge of the local legislation or policy as it pertains to children with disabilities" is the following demographic question. "None" was 1 (1.1%), the largest percentages was in "Poor" 28 (30.8%), "Average," the highest with 46 (50.05%), "Good," 13 (14.3%), and "Very Good," very low with 3 (3.3%).

Survey statement, "My level of confidence in teaching students with disabilities" responses were "Very Low," with 14 (15.4%), "Low," with 33 (36.3%), "Average," with 32 (35.2) as the highest percentage, "High," with 7 (7.7%), and "Very High," with the lowest percentage of 5 (5.5%).

The last demographic statement for the SACIE-R was "My level of experience teaching a student with a disability is:" "None" was the highest with 33 (36.3%), "Some" was a close second with 32 (35.2%), and "High (at least 30 full days) was 26 (28.6%).

Data Analyses

This study focused on four hypotheses to determine if there are any differences among the survey data of two groups: preservice teacher candidates and first year teachers. The negative items on the SACIE-R used reverse coding before analysis following the same procedures as carried out in the original study by Forlin et at. (2011). This study concentrates on preservice teacher candidates' and first year teachers' perceptions of preparedness, and responses to thoughts of teacher efficacy concerning preparation and their ability to teach in an inclusion classroom.

Hypothesis 1

Hypothesis 1 determined if there was a difference in mean survey scores for level of teacher compared to the reported population parameters for the instruments. A one sample *t*-test was used to compare the sample scores from my study to the mean population parameters of the instrument. The data was normally distributed, and met the assumption for a one-sample *t*-test. The Bonferroni method was used to control for a Type 1 error due to the use of multiple tests. The alpha was determined by dividing the total number of dependent variables (3) by the alpha of .05, and the adjusted alpha was 0.0167.

A one sample *t*-test was used to compare the mean population parameter to the combined sample of student teacher candidates and first year teachers for the Sentiments Scale (N = 10.584). A significant difference was found ($t(90) = 4.681$. $p = .000$) with the sample mean of 16.088 being significantly higher than the population mean. The same test was conducted to compare the sample mean for the Attitudes Scale to the population parameter (N = 14.317). There was a significant difference found ($t(90) = -3.778$, $p = .000$) with the sample mean being significantly less than the population mean. For the Concerns Scale sample one sample *t*-test,

the population value (N = 13.0805) was used. There was a significant difference found ($t(90) = -1.694$, $p = .094$) again showing the sample mean significantly less than the population mean.

After comparing the total sample data to the population parameters for both levels of teachers, I completed Post Hoc analysis between the two groups to determine if one population had lower or higher mean scores. A one sample *t* test was performed to compare the studies. No differences were found between the means of the groups with Post Hoc testing.

Population parameters for the *Teacher Efficacy for Inclusive Practice* (TEIP) Scale was compared to a study done by Peebles (2012) using a one sample *t*-test on the sample of student teacher candidate (n=141) for the Efficacy in Inclusive Practices (N = 25.87). A significant difference was found ($t(39) = 12.149$. $p = .000$) with the sample mean of 31.65 being significantly higher than the population mean. The same test was conducted to compare the sample mean for the Efficacy in Collaboration to the population parameter (N = 25.94). There was a significant difference found ($t(39) = 9.52$, $p = .000$) with the sample mean of 30.48 being significantly higher than the population mean. For the Efficacy in Managing Behavior one sample *t*-test, the population value (N = 24.54) was used. There was a significant difference found ($t(39) = 8.57$, $p = .000$) again showing the sample mean of 30.06 significantly more than the population mean.

Comparing my sample mean to international population parameters using the same instruments (SACIE and TEIP) detected similar overall results on the Total Scale Score (TSS) to a study done in Mexico by Forlin et al., (2010) and a study in Bangladesh by Ahsan et al., (2012) using preservice teachers on the SACIE, but determined significant differences in the TEIP.

The one sample *t*-test comparing these population parameters of preservice teacher candidates found a significant difference in the Mexican study on the Efficacy of Inclusion Scale ($t(39)=4.225$, p=.000), Efficacy in Collaboration Scale ($t(39)=3.390$, p=.002), and Efficacy in Managing Behavior ($t(39)=3.133$, p=.003). The Bangladesh study did not use the Sentiment Scale in their study due to low alpha score, but the studies were similar for the Attitudes and Concerns Scales. The TEIP found significant differences on the Efficacy of Inclusion Scale ($t(39)= 5.990$, p=.000) and Efficacy in Collaboration Scale ($t(39)= 6.161$, p=.000). My study was not significantly different for the Efficacy in Managing Behavior Scale. Table 2 compares the Total Scale Score (TSS) to the population parameter of studies done in Mexico and Bangladesh with preservice teachers and the mean parameter for Canada study:

Table 2 – Total Scale Score (TSS) of Preservice Teacher Candidates

Scale	Douglas 2013 TSS(SD)	Douglas 2013 Mean(SD)	Forlin et al. 2011 SACIE-R Mean(SD)	Peebles 2012 Mean(SD)	Forlin, et al. 2010 Mexico TSS(SD)	Ahsan et al. 2012 Bangladesh TSS(SD)
N=	40		542	141	286	1623
Attitudes	2.68 (.68)	13.40 (2.01)	14.32* (2.45)		2.81 (.69)	2.81 (.54)
Sentiments	3.25 (.71)	16.20 (2.39)	10.58* (2.61)		2.46 (.44)	Didn't use
Concerns	2.57 (.77)	12.83 (2.74)	13.08* (2.87)		3.09 (.52)	2.67 (.52)
Inclusion	5.28 (.71)	31.65 (3.01)	-	25.87*(4.59)	4.94*(.65)	4.80*(.59)
Collaboration	5.28 (.72)	30.48 (3.01)	-	25.94*(4.80)	4.81*(.86)	4.59*(.75)
Behavior	5.00 (.91)	30.03 (4.05)	-	24.54*(4.40)	4.67*(.71)	5.10 (.52)

Sentiments = Sentiments Scale, Attitudes = Attitudes, Concerns = Concerns Scale,
Inclusion = Efficacy in using inclusion, Collaboration = Efficacy in collaboration,
Behavior = Efficacy in managing behavior * a significant difference at .05

Other international studies that utilized these instruments (SACIE and TEIP) using in-service teachers found similar overall results on the Total Scale Score (TSS) to a study done by

Savolainen et al. (2012) which compared teachers (n=855) from South Africa and Finland. The one sample *t*-test comparing these population parameters of in-service teachers found a significant difference was found in the South African study on the SACIE with Attitudes Scale ($t(50)=11.107$, p=.000) and Concerns Scale ($t(50)=6.890$, p=.000). My data was similar for the Sentiments Scale. The TEIP found a significant difference in Efficacy in Collaboration Scale ($t(50)=9.436$, p=.000) and Efficacy in Managing Behaviors Scale ($t(50)= -3.040$, p=.004).

The Finnish *t* test results for the SACIE found a significant difference in the Sentiments Scale ($t(50)= -9.538$, p=.000), the Concerns Scale ($t(50)=10.699$, p=.000), and the Attitudes Scale ($t(50)=4.882$, p=.000). The TEIP found a significant difference in the Efficacy in Managing Behavior Scale ($t(50)=3.111$, p=.003) and found similar results for the Efficacy in Inclusion and Efficacy in Collaboration Scales. Table 3compares the Total Scale Score (TSS) to the population parameter of studies done in South Africa and Finland with in-service teachers:

Table 3 – Total Scale Score (TSS) for In-service Teachers

Scale	Douglas 2013 Mean(SD)	Douglas 2013 TSS(SD)	Savolainen, et al. 2012 S. Africa TSS	Savolainen, et al. 2012 Finland TSS
N=In-service Teachers	51	-	319	822
Attitudes	13.62 (2.01)	2.72 (.59)	2.10*	2.45*
Sentiments	16.00 (1.92)	2.5 (.66)	2.10	1.88*
Concerns	12.53 (2.05)	3.19 (.59)	3.14*	3.71*
Overall	14.05 (1.99)	2.80 (.61)	2.39	2.51
Inclusion	28.73 (3.71)	4.79 (.85)	4.68	4.60
Collaboration	27.92 (3.24)	4.92 (.72)	4.33*	4.50
Behavior	27.47 (4.11)	4.58 (.91)	4.87*	4.28*

Overall	28.04 (3.69)	4.76 (.83)	4.63	4.53

Sentiments = Sentiments Scale, Attitudes = Attitudes, Concerns = Concerns Scale, Inclusion = Efficacy in using inclusion, Collaboration = Efficacy in collaboration, Behavior = Efficacy in managing behavior * Significant at the .05

The overall findings for hypothesis one when comparing my study to the population parameters of published data was a follows: For the *SACIE,* sentiments were higher in preservice teacher candidates and in the middle for first year teachers. For attitudes, preservice teacher candidates were lower and higher in first year teachers. For concerns, preservice teacher candidates were lower and first year teachers were in the middle. On the *TEIP*, preservice teacher candidates and first year teachers were higher in efficacy of inclusion and collaboration and in the middle on efficacy of managing behavior.

Hypothesis 2

Hypothesis 2 established if there was a significant relationship between teacher attitudes and perceptions and teacher self-efficacy scores. A bivariate Pearson Correlation Coefficient was used to determine the strength of the relationship between these variables. Pearson Correlation Coefficient meets the assumption of measuring interval data that is normally distributed with a linear relationship (Cronk, 2010).

Table 4 shows the relationship calculated with a Pearson correlation coefficient for the relationship between the scales of the two instruments used in the study. A strong positive correlation was found between the following scales: Efficacy in Inclusion Scale and Efficacy in Collaboration Scale (r (89) = .800, $p < .01$); Efficacy in Inclusion Scale and Efficacy in Managing Behavior Scale (r (89) = .732, $p < .01$); Efficacy in Collaboration Scale and Efficacy in Managing Behavior Scale (r (89) = .702, $p < .01$); Moderate correlations were found

in the following scales: Sentiments Scale and Concerns Scale (r (89) = .581, p < .01); Concerns Scale and Efficacy in Inclusion Scale (r (89) = .441, p < .01); Low to weak correlations were found in theses scales: Sentiments Scale and Efficacy in Collaboration Scale (r (89) = .394, p < .01); Sentiments Scale and Efficacy in Inclusion Scale (r (89) = .326, p < .01); Sentiments Scale and Efficacy in Behavior Scale (r (89) = .307, p < .01); Attitudes Scale and Concerns Scale (r (89) = .302, p < .01); and Concerns Scale and Efficacy in Behavior Scale (r (89) = .277, p < .01). Attitudes Scale and Efficacy in using Inclusion Scale (r (89) = .243, p < .05), Attitudes Scale and Efficacy in Collaboration Scale (r (89) = .213, p < .05), and Sentiments Scale and Attitudes Scale (r (89) = .210, p < .05). The only correlation not showing a significant difference was the Attitudes Scale and Efficacy in Managing Behavior Scale. Table 4 displays the output of the correlation matrix for the scales of the instruments used in the study:

Table 4 – Scale Correlation Matrix

Variable	Sentiments	Attitudes	Concerns	Inclusion	Collaboration	Behavior
Sentiments	1	-	-	-	-	-
Attitudes	.210*	1	-	-	-	-
Concerns	.581**	.302**	1	-	-	-
Inclusion	.326**	.243*	.441**	1	-	-
Collaboration	.394**	.213*	.371**	.800**	1	-
Behavior	.307**	.096	.277**	.732**	.702**	1

Sentiments = Sentiments Scale, Attitudes = Attitudes, Concerns = Concerns Scale, Inclusion = Efficacy in using inclusion, Collaboration = Efficacy in collaboration, Behavior = Efficacy in managing behavior. *Correlation is significant at the .05 level. **Correlation is significant at the .01 level.

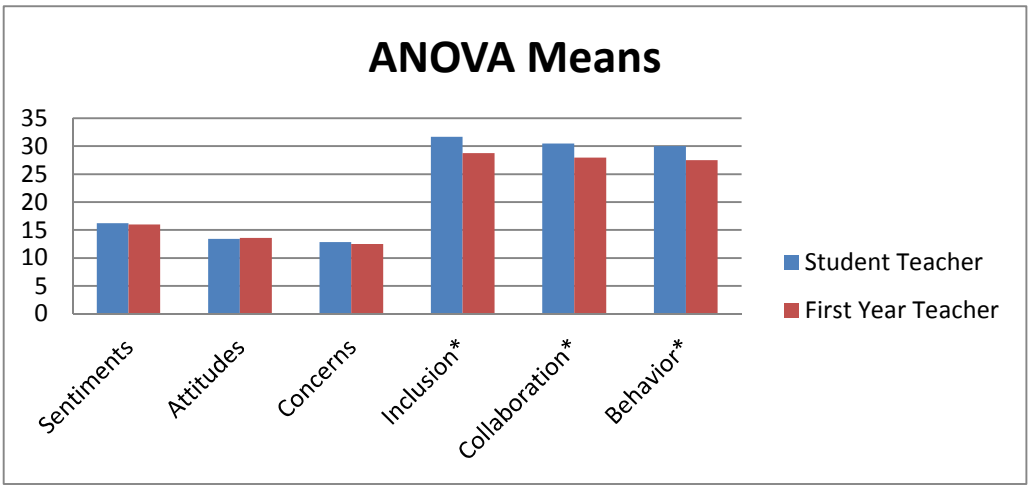
Hypothesis 3 and 4

A One-Way ANOVA was utilized to address Hypothesis 3 and Hypothesis 4 as follows: Hypothesis 3 – There is no significant difference in mean scores on SACIE-R by level of teacher. Hypothesis 4 – There is no significant difference in mean scores on TEIP by level of teacher. SPSS was used to determine if a significant difference occurred between the dependent variable of Survey Scores and the independent variable of Level of Teacher used in this study.

There are assumptions that must be met when using ANOVA, including, having a single independent variable and single dependent variable (interval), that are normally distributed, and each group must be independent of the other (Cronk, 2010). This data meets all of these assumptions and a one-way ANOVA was used to test for these hypotheses.

After computing the one-way ANOVA comparing Survey Scores to Level of Teacher, a significant difference was found in the following: Efficacy in Inclusion ($F(1,89) = 16.220$, $p < .05$), Efficacy in Collaboration ($F(1,89) = 14.822$, $p < .05$), and Efficacy in Behavior ($F(1,89) = 8.774$, $p < .05$). No significant difference was found between the following scales: Sentiments Scale ($F(1,89) = .196$, $p > .05$), Attitudes Scale ($F(1,89) = .275$, $p > .05$), and Concerns Scale ($F(1,89) = .346$, $p > .05$)

Table 8 displays the means as calculated through ANOVA comparing the student teacher candidates to the first year teacher results:



Sentiments = Sentiments Scale; Attitudes = Attitudes Scale; Concerns = Concerns Scale; Inclusion = Efficacy in Inclusion Scale; Collaboration = Efficacy in Collaboration Scale; and Behavior = Efficacy in Managing Behavior Scale. * indicates a significant difference in means.

Effect Size

The between group effect size is resolved by dividing the between group sum of squares by the total sum of squares from the output of the ANOVA analysis. The results of the between groups effect size includes: Sentiments Scale, .0022; Attitudes Scale, .0031; and Concerns Scale, .0039; Efficacy in Inclusion, .1542; Efficacy in Collaboration, .1428; and Efficacy in Behavior, .0897. Based on Cohen's (1988) interpretation, there is small or no effect size (<.2) between the groups for the TEIP. These results for the SACIE found that there were no differences between the groups, so no effect size.

Although the ANOVA showed that the means were significantly different for the TEIP scales, the effect size was small. The largest effect size or difference was Efficacy in Inclusion with 15.42% of the total variance being accounted for by the dependent variable, level of teacher. Efficacy in Collaboration was a close second with 14.28% of the total variance being accounted for. A similar study done by Ahsan et al. (2012) also found a small overall effect size for the

TEIP with 12% of variance on the scales and could be explained by variables not examined during the study.

Summary

In conclusion, chapter 4 began with a review of the study and the research question and hypotheses that guided this study. An in-depth discussion of the participants of the study, the return rate of the instruments, graphical analysis of the data including outliers, examination and treatment of the missing data, and effect size was included, as well. Analysis for each of the hypotheses was outlined and discussed. Chapter 5 contains the interpretation of the data analysis and the implications for further research.

CHAPTER 5

Analysis of Data

Introduction

This chapter contains a discussion of the findings from the analysis of data as they relate to the literature concerning level of teacher (preservice teacher candidates and first year teachers) and their perceptions, attitudes, self-efficacy, and teacher efficacy toward inclusion. In addition, limitations, recommendations for future studies, and a final summary are discussed.

The purpose of this quantitative cross-sectional study was to concentrate on preservice teacher candidates' and first year teachers' perceptions of preparedness, and responses to thoughts of teacher efficacy concerning preparation and their ability to teach in an inclusion classroom. Student teacher candidates (n=40) and first year teachers (n=51) were assessed using two instruments, SACIE-R and TEIP. The *Sentiments, Attitudes, and Concerns about Inclusive Education Scale Revised* (SACIE-R), which measures preservice teacher candidates and first year teachers sentiments toward students with disabilities and how they treat these students in their classroom, their attitudes toward the inclusion of these students in their classroom, and their concerns or willingness and ability to adapt one's teaching to meet these educational needs of students with disabilities. The negative items on the SACIE-R used reverse coding before analysis mirroring analysis in the original study.

The second instrument used for the study was The *Teacher Efficacy for Inclusive Practices Scale* (TEIP), which measures efficacy of inclusion instruction in the teachers' classrooms, their perceptions of efficacy in working with parents and other professionals, and self-perceptions of efficacy in dealing with disruptive behaviors. According to the study by Forlin et al. (2011), the need to assess the sentiments, attitudes, and concerns of teachers to help evaluate the participants' willingness to teach students with disabilities in their classroom is an area that has limited prior research. This study concentrates on preservice teacher candidates' and first year teachers' perceptions of preparedness, and responses to thoughts of teacher efficacy concerning preparation and their ability to teach in an inclusion classroom that may add to this prior research.

Demographics

Demographic data was collected for examination which included grade level teaching/training, gender, age, highest level of education, interactions with a person with disabilities, level of training educating students with disabilities, knowledge of legislation and policy pertaining to students with disabilities, level of confidence in teaching students with disabilities, and level of experience teaching students with disabilities. Based on the demographic data gathered from the participants surveyed, which included student teacher candidates and first year teachers, we find that more elementary education majors (61.1%) participated which was expected due to the larger numbers of student teacher candidates and first year teachers in that major. The special education (2.1%) was first year teachers only since no special education student teacher candidates were included in this study, this was unexpected. This could be due to the first year teacher accepting a job in the area of special education on an emergency certification.

Another demographic section examined was gender. Again, the participants surveyed included student teacher candidates and first year teachers. The information collected showed that female participants were the largest group (n=76; 80%) and was expected. According to the National Center for Educational Statistics (2011**),** 76% of teachers in the 2007-2008 school year were female. The highest percentage of student teacher candidates and first year teachers were 25 years of age or below (61.1%) which is to be expected. It is interesting to see the non-traditional student combined for a total percentage of 37.9%. According to the Center for Postsecondary and Economic Success (2011) the percent of undergraduates that are nontraditional age of 25 or above as of the 2008 school year was 36% with this percentage increasing over the next ten years more proportionally than the traditional group with today's economy and unemployment rates.

The next section of the survey was the highest level of education with all participants being either student teacher candidates or first year teachers. Any higher level of education other than bachelor's degree, was not expected.

The second part of demographic sections deals with statements that involve the statements pertaining to special education and children with disabilities. The first statement "I have had significant/considerable interactions with a person with a disability" shows the interactions with a person with a disability. This discovery was unexpected with 51 (53.7%) stating yes they had significant interactions with students who have a disability. I did a post hoc analysis and divided the data by preservice teacher candidate and first year teachers with no change. As previously stated in the literature review, Campbell et al. (2003) and Richards and Clough (2004) found that many preservice teacher candidates enter the field of teacher education with little or no experience with students that have disabilities.

The next demographic statement on the survey is “I have had the following level of training on educating students with disabilities” The highest percentage was “some” with 78.9% and could be due to the Introductory to Special Education course that all education majors are required to complete during their education program. The lower percentage of “high level of training” 7.4%, was expected since there is not a field experience component attached to the introductory course for special education required.

“My knowledge of the local legislation or policy as it pertains to children with disabilities” is the next demographic question. The largest percentages are in “Poor” (27%) and the highest in “Average” (51.6%). This is expected with the topic of policy and legislation introduced in at least two classes during the undergraduate education program.

Results and Discussion

This study was completed to determine if mean scores differed between preservice teacher candidates and first year teachers on instrumentation scores measuring inclusion self-efficacy and teacher efficacy. The summary of the research question and each hypothesis follows:

Research Question

Is there a difference in mean scores between preservice teacher candidates and first year teachers on instrumentation scores measuring inclusion self-efficacy and teacher efficacy? Results for the inclusion self-efficacy, as measured by the SACIE-R for this study, revealed that sentiments were higher in preservice teacher candidates and in the middle for first year teachers. For attitudes, preservice teacher candidates were lower and higher in first year teachers. For concerns, preservice teacher candidates were lower and first year teachers were in the middle.

Results for teacher efficacy, as measured by the *TEIP* in this study, showed that preservice teacher candidates and first year teachers were higher in efficacy of inclusion and collaboration and in the middle on efficacy of managing behavior.

Hypothesis One

Hypothesis one stated that there is no difference in the mean survey scores for level of teacher compared to the reported population parameter for the instruments. A one sample t-test was used to determine if there was a significant difference between the survey means and population mean. This analysis found that there was a significant difference between the sample from this study and the established population parameter. A Post Hoc analysis was calculated dividing the level of teachers and found no significant change in the results.

The results of hypothesis one could be influenced by other factors: One possible explanation of the results could be the small sample size of this study compared to the population parameter for the instrument. Small samples can represent extremes in a normal distribution and thus additional research is needed to verify if my sample represents the normal distribution in this population. Another explanation could be the demographics of the study compared to the international demographics of the population parameter of the instrument.

The results indicated that the sample from this study scored lower than the population parameter, but was not significant. Standard Deviations were similar with scores falling between +1 and -1 or 68% of the population. These results finds comparable variability with the original study being a larger sample (n=514), replicating the study with this smaller sample (n=91). There may be several explanations for this occurrence. Of particular concern may be that the

student teachers and first year teachers may actually have lower views of individuals with disabilities based on a lack of experience working with this population. According to (Brownlee & Carrington, 2000) a lack of direct contact with students that have disabilities during their k-12 experience or teacher education program can influence how teachers perceive a student with a disability. Additionally, the lack of personal contact with these students can directly affect the perceived sense of efficacy to teach in an inclusive classroom (Bowlin, 2012; Campell et al., 2003; Mintz, 2007; Richards & Clough, 2004).

Hypothesis Two

Hypothesis two states that there is no significant correlation between teacher attitudes and perceptions, and teacher self-efficacy scores. The Pearson Correlation Coefficient was conducted to find any significant relationships between the scales of the two instruments used in the study. The survey results revealed a significant difference in in all scales (Appendix B) except Attitude and Efficacy of Managing Behavior. The null hypothesis was rejected based on the results of the data.

From the results of hypothesis two, attitudes are correlated with all scales except behavior. This indicates that attitudes can be positive or negative, but it is not related to handling behavior in the classroom. This lack of correlation in this study could indicate that the teachers believe their ability to teach is not related to attitudes, but to teacher efficacy or sentiments, which is engaging students with disabilities. My study results were similar to the study conducted by Savolainen et al. (2012), regarding behavior efficacy in Finnish, using in-service teachers. The participants, in my study, student teacher candidate and first year teacher, were concerned about managing behavior in an inclusive classroom.

Sentiments and concerns are correlated in all areas. Data reveals that the sample can have a positive attitude or a negative attitude about having a student in an inclusive setting, but are not sure if they know what to do with those students. The study by Savolainen et al., (2012) found that Finnish teachers did not have positive or negative attitudes toward inclusion, but had concerns when they actually had a child with disabilities in their classes.

The analysis agreed with Burke and Sutherland 2004, candidates and teachers need a positive attitude to work with students with disabilities as detailed earlier. The survey results matched previous research conducted by Sze (2009) and Campbell et al. (2003), which found that the most significant predictor of having a successful inclusive classroom is the attitudes of the teachers, and teachers who have lower levels of self-efficacy and negative feelings toward special needs children are less successful. These factors can affect the educational progress of their students.

Hypothesis Three and Four

Hypothesis three shows that there is no significant difference in mean scores on SACIE-R by level of teacher. Hypothesis four states that there is no significant difference in mean scores on TEIP by level of teacher. A one-way analysis of covariance (ANOVA) was completed to compare the mean difference between survey scores by level of teacher. The analysis showed that there was no statistically significant difference in the SACIE-R scores by level of teacher indicating that teachers' sentiments, attitudes, and concerns do not differ in the time period of training to first year teaching experience. At first look this could be interpreted as the reverse of Bowlin (2012), Campbell et al. (2003), Mintz (2007), and Richards and Clough (2004) who believed that additional experience with teaching those with disability would increase SACIE-R

scores. However, this was a brief time period and perhaps students and first year teachers did not gain enough experiences to significantly alter their perceptions. Additional longitudinal studies are needed to develop a credible line of development for teacher attitudes concerning students with disabilities.

The results from my study are supported by the results of Malinen et al. (2011). There was significant difference in TEIP scores by level of teacher on all three scales, thus the null hypothesis was rejected. The results were similar to previous research conducted by de Boer, Pijl, and Minnaert (2011) stating that teachers support inclusion classrooms in general, but do not want to have children with disabilities included when it involves their individual teaching performance. Results were further supported by a study by Malinen et al., (2011) and Ahsan et al., (2012) using the TEIP scale. Both found that the most significant concern for teachers was their perception or sense of efficacy in collaborating with parents and other professionals.

Limitations

The limitations of this study were the small sample size, the demographic area of the study, and all of the participants came from one university's teacher education program. The instrument population parameter was from 542 preservice teachers from four countries that included nine institutions. My study was conducted at one university in southeastern United States and may not generalize to other universities. Demographics were not discussed due to the small sample size. Timing could be a limitation that affects results due to the effect of lack of time in the field with student teacher candidates or due to some student teacher candidates just completing an introduction to special education course.

Summary of Findings

The purpose of this quantitative cross-sectional study was to compare two groups by level of teacher for possible differences in preservice teacher candidates' and first year teachers' perceptions, attitudes, and self-efficacy toward inclusion, and the increase or decrease of teacher efficacy. In Hypothesis one a one sample *t*-test was used to determine if there was a difference in mean survey scores for level of teacher compared to the reported population parameter for both instruments used. For the SACIE-R, a significant difference was found. This could have been due to the small sample size. For the TEIP, the results of my study showed a strong reliability coefficient on the TEIP scale Cronbach's alpha between my study and three other studies indicating a very strong internal consistency.

For Hypothesis two a Pearson Correlation Coefficient was conducted to find any significant relationship between the scales of both instruments used in this study. The correlations from both level of teachers, found that there was a positive correlation between attitudes and all other scales with the exception of Efficacy in Managing Behavior. So both groups feel positive in their ability to accept students with disabilities into their classroom environment, but have reservations about managing behavior in the inclusive classroom. A recommendation for teacher education programs would be have a classroom management class that focuses on managing inclusion students. Also, the exposure to students with disabilities during field experience could help with this deficit by observing effective clinical instructors and their classroom management skills.

Another result of the Pearson Correlation Coefficient is the positive correlation between sentiments and all scales. The sentiments scale definition that the responses of this study

determined, is the measurement of discomfort that teachers feel from being around someone with a disability and how they would feel if they had a disability. Since all scales are positively related in this area, our teachers believe they can accept that students with disabilities can learn in their classrooms. The teachers also believe they could overcome a disability themselves, and could fit in and be a part of society with a disability. From this correlation, when sentiments go up, all scales go up. This is an important finding for teacher education. If programs focus on increasing sentiments, teacher efficacy should increase.

Hypothesis three and four used a one-way ANOVA to determine a significant difference in mean scores by level of teacher on the SACIE-R and TEIP instruments. The results found no differences in the SACIE-R scale between the groups, but did find significant difference in the TEIP scales. This result found that as student teacher candidates they feel they are prepared to teach in an inclusive classroom, but first year teachers reveal a drop in efficacy. These findings are consistent with other professions. Teachers as a set of professionals are experiencing the same phenomenon as other professions such as nursing, attorneys, counselors, and doctors. This is an area that will need further research to determine if dual certification would help this drop in efficacy to be less, rebound quicker, or not drop at all.

Based on the findings of this research study and the responses of the participants, I determined that more clarification of the definitions of the SACIE scale is needed: Sentiments is defined as teacher efficacy in the scales. The study revealed that it is more about including students with disabilities in an inclusive setting and the measure of comfort the teacher feels being around someone with a disability. Attitudes from the scale definition are attitudes toward students with disabilities in a classroom. It seems to be more about the opinion or belief that

students with disabilities should be in an inclusive classroom. Concerns from the scale definition are the teachers willingness and ability to adapt one's teaching to meet educational needs of students with disabilities. Although I agree with this definition, it should also include the worries a teacher feels in meeting the challenges of an inclusive classroom.

Future Research Recommendations

Based on the instrumentation scores, the field experience component of the dual certification in the areas of elementary education and mild/moderate special education could improve scores. Institutions should provide more opportunities for preservice teachers to interact with students with disabilities which may impact their attitudes toward working with them. Bandura (1977) found that efficacy beliefs can be changed through positive experiences. Field experience with disabilities, in a positive, supportive environment, could create a higher level of self-efficacy which could positively change attitudes toward inclusive classrooms.

In order to attain more statistically significant results to the instrument population parameter, a larger sample population needs to be used in future research. The instruments used in this study were intended to measure self-efficacy and teacher efficacy. For further study, a qualitative component could be added to the study for clarification of results.

A suggested five year longitudinal study, comparing preservice teacher candidates and first year teachers who have a degree in elementary or secondary education with preservice teacher candidates who have dual certification in elementary or secondary education and mild/moderate certification in special education. By using both instruments of *SACIE-R* and *TEIP*, we could compare these two groups on perceived attitudes of inclusion and the increase or

decline of teacher efficacy between the groups. The study could also address the rate of teacher retention between the groups.

Chapter Summary

The research question for this study asked if there was a difference in mean scores between preservice teacher candidates and first year teachers on instrumentation scores measuring inclusion self-efficacy and teacher efficacy. Results for the inclusion self-efficacy, as measured by the *SACIE-R* for this study, revealed that sentiments were higher in preservice teacher candidates and in the middle for first year teachers. For attitudes, preservice teacher candidates were lower and higher in first year teachers. For concerns, preservice teacher candidates were lower and first year teachers were in the middle. Results for teacher efficacy, as measured by the *TEIP* in this study, showed that preservice teacher candidates and first year teachers were higher in efficacy of inclusion and collaboration and in the middle on efficacy of managing behavior.

Overall, the data provided evidence from hypothesis three, that the preservice teachers feel prepared to teach in an inclusive classroom, but first year teachers' do not feel as prepared, due to the drop in efficacy. Richards and Clough's (2004) study found that most preservice teacher candidates think they are prepared for an inclusive classroom until they actually start teaching and then feel they are lacking the skills needed to help all students succeed.

Loreman et al. (2005) and Jobling and Moni (2004) exposed in their research that the negative attitudes of preservice teacher candidates can be changed through teacher training. Measuring these perceptions of inclusion using instruments such as the *SACIE-R* and *TEIP* can

be a starting point for designing curricula that prepares these preservice teacher candidates for a positive inclusion setting.

One of the goals of teacher education is to produce teachers who have knowledge, skills, and dispositions to be effective teachers who can meet the needs of all students in an inclusive classroom (Notar, 2009). NCATE (2008) defines dispositions as values, commitments, and professional ethics that influence behaviors toward families, colleagues, and communities that affect student learning, motivation, and development, as well as the educator's own professional growth. These dispositions are guided by the teachers' attitudes and beliefs that are linked to values that inclusive teachers must have. These beliefs include the disposition that all students can learn and participate in the classroom community. Based on the results of this study, the SACIE-R measures these aspects dispositions for inclusion and could be utilized to reform the policy and curriculum reforms for Inclusive Education Programs.

Identifying preservice teachers and first year teachers' attitudes, sentiments, and concerns, along with efficacy in inclusion practices, collaboration and managing behavior is the first step in changing the teacher education program curricula. This identification of aspects of dispositions could be used to produce inclusion teachers with positive attitudes to ensure the success of all students in a classroom.

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APPENDICES

APPENDEX A

Survey Instruments

The Sentiments, Attitudes and Concerns about Inclusive Education Scale (SACIE)

In order to be able to track pre and post data please include your student number. This will not be used to identify individuals.

Student ID: _____ Pre-Test _____ Post-Test _____

Please ✓ on the line as appropriate.

A. I am teaching / training to teach in:

1. Early Childhood _____ 3. Secondary _____

2. Primary/Elementary _____ 4. Special Education _____

B. **I am:** 1. Male _____ 2. Female _____

C. **What is your age?** _____ years

D. **My highest level of education completed is:**

1. Secondary School or its equivalent_____ 3. Master's Degree _____

2. Bachelor's Degree or its equivalent_____ 4. Other, please specify_____

E. **How many years of university education have you completed?** _____

F. **I have had significant/considerable interactions with a person with a disability**:

1. Yes _____ 2.No _____

G. **I have had the following level of training on educating students with disabilities:**

1. None ____ 2. Some ____ 3. High (at least 40hrs) ____

H. **My knowledge of the local legislation or policy as it pertains to children with disabilities is:**

1. None ____ 2. Poor ____ 3. Average ____ 4. Good ____ 5. Very Good ____

I. **My level of confidence in teaching students with disabilities is:**

1. Very Low ____ 2. Low ____ 3. Average ____ 4. High ____ 5. Very High ____

J. **My level of experience teaching a student with a disability is:**

1. None ____ 2. Some ____ 3. High (at least 30 full days) ____

The following statements pertain to inclusive education which involves students from a wide range of diverse backgrounds and abilities learning with their peers in regular schools that adapt and change the way they work in order to meet the needs of all.

Please circle the response which best applies to you.

SD	D	A	SA
Strongly Disagree	**Disagree**	**Agree**	**Strongly Agree**

1	I am concerned that students with disabilities will not be accepted by the rest of the class.	**SD D A SA**
2	I dread the thought that I could eventually end up with a disability.	**SD D A SA**
3	Students who have difficulty expressing their thoughts verbally should be in regular classes.	**SD D A SA**
4	I am concerned that it will be difficult to give appropriate attention to all students in an inclusive classroom.	**SD D A SA**
5	I tend to make contacts with people with disabilities brief and I finish them as quickly as possible.	**SD D A SA**
6	Students who are inattentive should be in regular classes.	**SD D A SA**
7	I am concerned that my workload will increase if I have students with disabilities in my class.	**SD D A SA**
8	Students who require communicative technologies (for example Braille / sign language) should be in regular classes.	**SD D A SA**
9	I would feel terrible if I had a disability.	**SD D A SA**

10	I am concerned that I will be more stressed if I have students with disabilities in my class.	**SD D A SA**
11	I am afraid to look a person with a disability straight in the face.	**SD D A SA**
12	Students who frequently fail exams should be in regular classes.	**SD D A SA**
13	I find it difficult to overcome my initial shock when meeting people with severe physical disabilities.	**SD D A SA**
14	I am concerned that I do not have the knowledge and skills required to teach students with disabilities.	**SD D A SA**
15	Students who need an individualized academic program should be in regular classes.	**SD D A SA**

Teacher Efficacy for Inclusive Practice (TEIP) Scale

This survey is designed to help understand the nature of factors influencing the success of routine classroom activities in creating an inclusive classroom environment.

Please circle the number that best represents your opinion about each of the statements. Please attempt to answer each question

1	2	3	4	5	6
Strongly Disagree	**Disagree**	**Disagree Somewhat**	**Agree Somewhat**	**Agree**	**Strongly agree**

		SD	D	DS	AS	A	SA
1	I can make my expectations clear about student behavior.	1	2	3	4	5	6
2	I am able to calm a student who is disruptive or noisy.	1	2	3	4	5	6
3	I can make parents feel comfortable coming to school.	1	2	3	4	5	6
4	I can assist families in helping their children do well in school.	1	2	3	4	5	6
5	I can accurately gauge student comprehension of what I have taught.	1	2	3	4	5	6
6	I can provide appropriate challenges for very capable students.	1	2	3	4	5	6
7	I am confident in my ability to prevent disruptive behavior in the classroom before it occurs.	1	2	3	4	5	6
8	I can control disruptive behavior in the classroom.	1	2	3	4	5	6

9	I am confident in my ability to get parents involved in school activities of their children with disabilities.	1 2 3 4 5 6
10	I am confident in designing learning tasks so that the individual needs of students with disabilities are accommodated.	1 2 3 4 5 6
11	I am able to get children to follow classroom rules.	1 2 3 4 5 6
12	I can collaborate with other professionals (e.g itinerant teachers or speech pathologists) in designing educational plans for students with disabilities.	1 2 3 4 5 6
13	I am able to work jointly with other professionals and staff (e.g. aides, other teachers) to teach students with disabilities in the classroom.	1 2 3 4 5 6
14	I am confident in my ability to get students to work together in pairs or in small groups.	1 2 3 4 5 6
15	I can use a variety of assessment strategies (for example, portfolio assessment, modified tests, performance-based assessment, etc.).	1 2 3 4 5 6
16	I am confident in informing others who know little about laws and policies relating to the inclusion of students with disabilities.	1 2 3 4 5 6
17	I am confident when dealing with students who are physically aggressive.	1 2 3 4 5 6
18	I am able to provide an alternate explanation or example when students are confused.	1 2 3 4 5 6

THANK YOU FOR COMPLETING THIS QUESTIONNAIRE 

APPENDEX B

Scales Used for Study

Scales for *The Sentiments, Attitudes, and Concerns about Inclusive Education Scale Revised*

Scales	**Statements**
Attitudes	• Students who have difficulty expressing their thoughts verbally should be in a regular classroom • Students who are inattentive should be in a regular classroom • Students who require communicative technologies (for example Braille/sign language) should be in regular classes • Students who frequently fail exams should be in a regular classroom • Students who need an individualized educational program should be in regular classes
Sentiments	• I dread the thought that I could eventually end up with a disability • I tend to make contacts with people with disabilities brief and I finish them as quickly as possible • I would feel terrible if I had a disability • I am afraid to look at a person with a disability straight in the face • I find it difficult to overcome my initial shock when meeting people with severe physical disabilities
Concerns	• I am concerned that students with disabilities will not be accepted by the rest of the class • I am concerned that it will be difficult to give appropriate attention to all students in an inclusive classroom • I am concerned that my workload will increase if I have students with disabilities in my class • I am concerned that I will be more stressed if I have students with disabilities in my class • I am concerned that I do not have the knowledge and skills required to teach students with disabilities

Scales for *Teacher Efficacy for Inclusive Practice Scale*

Scales	**Statements**
Efficacy of Inclusion	• I can accurately gauge student comprehension of what I have taught • I can provide appropriate challenges for very capable student • I am confident in designing learning tasks so that the individual needs of students with disabilities are accommodated • I am confident in my ability to get my students to work in pairs or small groups • I can use a variety of assessment strategies (portfolio assessment, modified tests, performance-based assessments, etc.) • I am able to provide an alternative explanation or example when students are confused
Efficacy of Collaboration	• I can make parents feel comfortable coming to school • I can assist families in helping their children do well in school • I am confident in my ability to get parents involved in school activities of their children with disabilities • I can collaborate with other professionals (e.g. itinerant teachers or speech pathologists) in designing educational plans for students with disabilities • I am able to work jointly with other professionals and staff (e.g. aides, other teachers) to teach students with disabilities in the classroom • I am confident in informing others who know little about laws and policies related to the inclusion of students with disabilities
Efficacy of Managing Behavior	• I can make my expectations clear about student behavior • I am able to calm a student who is disruptive or noisy • I am confident in my ability to prevent disruptive behaviors in the classroom before it occurs • I can control disruptive behavior in the classroom • I am able to get children to follow classroom rules • I am confident when dealing with students who are physically aggressive

APPENDIX C

Permission for Using Instrument for Participants

Information to Participate in an Experimental Study

Title: An Investigation of Attitudes and Perceptions of Preservice Teachers Compared to First Year Teachers Toward Inclusion

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Description
Over the last decade the "push" for full inclusion has changed the appearance of our general education classrooms to the extent that our general education teachers do not feel adequately prepared to teach. The teacher preparation programs have to change with the federal mandates for inclusion. Pre-service teacher candidates need to be prepared to meet the needs of all learners in a classroom. The lack of preparation may affect the pre-service teachers' attitude and perception of students with disabilities in a general education classroom. The purpose of this study will be to examine senior preservice teacher candidates' attitudes and perceptions toward inclusion and the change from the teacher education program to their first year of teaching. This data will help to develop a teacher education program that will prepare today's education students for today's inclusive classrooms. It will take you about 15 minutes to complete both surveys. The survey will be explained, along with a letter of consent and questions answered.

Risks and Benefits
You may feel uncomfortable because you do not want to rate your teacher education program negatively or discuss your efficacy toward inclusion, but this data could help to improve the teacher education program for students in the future.

Cost and Payments
The surveys will take about 15 minutes to complete. There are no costs and no payments given for helping us with this study.

Confidentiality
The surveys will be coded with no name appearing on the surveys. The only information that will be on your survey materials will be your gender, your age, and level of education. Therefore, we do not believe that you can be identified from any of your surveys.

Right to Withdraw
You do not have to take part in this study. If you start the study and decide that you do not want to finish, all you have to do is to tell Nancy E. Douglas or Dr. Jerilou Moore in person, by letter, or by telephone at the Department of Teacher Education, Guyton Hall, The University of Mississippi, University MS 38677, or 915-7063. Whether or not you choose to participate or to

withdraw will not affect your standing with the Department of Teacher Education, or with the University.

The researchers may terminate your participation in the study without regard to your consent and for any reason, such as protecting your safety and protecting the integrity of the research data.

IRB Approval

This study has been reviewed by The University of Mississippi's Institutional Review Board (IRB). The IRB has determined that this study fulfills the human research subject protections obligations required by state and federal law and University policies. If you have any questions, concerns, or reports regarding your rights as a participant of research, please contact the IRB at (662) 915-7482.

APPENDIX D

Primary Authors Permission for Using Instrument

Tim Loreman tim.loreman@concordia.ab.ca to"douglasn@olemiss.edu"
<douglasn@olemiss.edu>
ccChris Forlin <cforlin@ied.edu.hk>,
Umesh Sharma <umesh.sharma@education.monash.edu.au>
DateWed, Oct 27, 2010 at 12:46 AM
SubjectRe: Permission to use SACIE scale

Dear Nancy,

We would be pleased for you to use SACIE. Since 2007 we have refined and validated the instrument, with the validation paper currently submitted to a journal. It is a much more concise instrument now. We have also started looking at Self Efficacy for inclusion and so have constructed a scale for that which has good reliability. I attach both for your use.

We'd be very interested in hearing the outcome of your study. We may be able to provide some support when you come to the analysis phase if you would like your data included in a larger international database we have.

Cheers, Tim

Umesh Sharma umesh.sharma@monash.edu toTim Loreman <tim.loreman@concordia.ab.ca>
cc"douglasn@olemiss.edu" <douglasn@olemiss.edu>,
Umesh Sharma <Umesh.Sharma@education.monash.edu.au>,
Chris Forlin <cforlin@ied.edu.hk>
DateWed, Nov 10, 2010 at 6:01 PM
SubjectRe: Permission to use SACIE scale

Hi Nancy,
You need to contact Professor Chris Forlin to get permission to use SACIE and to get info about this scale. I can give you information about the self efficacy scale.
The reference for the article is:
Sharma,U., Loreman, T. & Forlin, C. (accepted). Measuring teacher efficacy to implement inclusive practices: An international validation. Journal of Research in Special Needs Education.

The purpose of this study was to develop an instrument to measure perceived teacher efficacy to teach in inclusive classrooms. An 18-item scale was developed on a sample of 607 pre-service teachers selected from four countries (Australia, Canada, Hong Kong and India). Factor analysis of responses from the sample revealed three factors: efficacy in using inclusive instruction, efficacy in collaboration and efficacy in dealing with disruptive behaviours. The alpha coefficient for the total scale was 0.89. Alpha coefficients for three factors ranged from 0.85 to 0.93. Reliability analysis for the total scale as well as factors for each country suggested that the scale is a reliable measure of pre-service teacher perceptions of self-efficacy for inclusion across different countries.

Good luck with your research.

Regards,

Umesh

VITA

Nancy Eugenia Durham Douglas was born in Oxford, Mississippi on April 27, 1957. She graduated from South Panola High School, in Batesville, Mississippi in 1974 and graduated from The University of Mississippi in 1999 with an undergrad degree in Secondary Mathematics and Special Education. While at Ole Miss, she received the Taylor Medal and Class Marshall of her graduating class. She also was a member of several honor societies including Phi Kappa Phi. She was awarded the Mississippi Teacher Fellowship Program grant to attend The University of Mississippi to earn a Master's Degree in Special Education.

After teaching in public schools in the area of special education (including self-contained, resource, and inclusion) at Independence High School, in Independence, Mississippi, she accepted a job in Desoto County as Local Survey Committee Chair and Teacher Support Team Chair.

In 2006, she accepted a job at The University of Mississippi as an adjunct professor teaching in the area of Special Education in the School of Education and is presently in that position. After her second year of teaching at Ole Miss, she decided to pursue a doctorate degree in Elementary Education with an emphasis in reading. She received the Outstanding Doctoral Student in Elementary Education while completing her doctorate degree. She resides in Batesville, Mississippi with her husband of 39 years.