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Professional Development and Teacher Perception of Efficacy for Inclusion

A dissertation

presented to

the faculty of the Department of Educational Leadership and Policy Analysis

East Tennessee State University

In partial fulfillment

of the requirements for the degree

Doctor of Education in Educational Leadership

by

Susan Elizabeth Lee

May 2013

Dr. Pamela Scott, Chair

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Dr. Virginia Foley

Dr. Donald Good

Keywords: Professional Development, Inclusion, Teacher Efficacy

ABSTRACT

Professional Development and Teacher Perception of Efficacy for Inclusion

by

Susan E. Lee

This study was designed for the purpose of quantitatively examining the significant elements of reform-based professional development and their relationship to teachers' self-efficacies for inclusion. The theoretical frameworks for this study were drawn from Bandura's (1997) self-efficacy and social cognitive theory in addition to pre-existing research pertaining to professional development and teacher efficacy for inclusion.

A web based survey was developed and made available for voluntary participation to a total population of 385 elementary school teachers in one East Tennessee school district. Data were collected from 79 elementary school teachers in 14 of the district's elementary schools.

Findings included no significant statistical correlation between teacher self-efficacy for inclusion scores and the amount of professional development completed during the current school year. Respondents did report a perception that inclusion was not significantly emphasized during professional development activities. Self-efficacy for inclusion scores of teachers with 11+ years of overall teaching experience were found to be significantly higher than teachers with 1-10 years of overall teaching experience. Additionally, there was no significant difference between self-efficacy scores of teachers who were required to take 1 or 2 special education courses for initial certification and

teachers who were required to take more than 2 special education courses for initial certification.

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DEDICATION

This study is dedicated to:

My husband who has blessed with me with his love, patience, and encouragement to continue serving, learning, and loving.

My son whose educational journey is just beginning. His interest in justice, service, and excellence will provide a pathway that God will direct in a mighty way.

My parents whose continuous support and accountability have kept my spirit uplifted and my mind focused on completion.

My dear friend Mickey without her encouragement, listening, and laughter I would have never attempted nor completed any of this.

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CHAPTER 1

INTRODUCTION

Public education in the United States of America has been a service for citizens since the early 1800s. Beginning in the 1980s the public education system has been challenged to reform the delivery of educational services, redefine who receives educational services, and strengthen the content being taught within the classroom. In 1983 the National Commission on Excellence in Education published a report, *A Nation at Risk*, which pinpointed the public education system's substandard delivery of educational services as a potential risk to national security (DuFour & Eaker, 1998). Research was conducted and a report that contradicted *A Nation at Risk* was drafted by the Department of Energy's Sandia National Laboratories in 1991. The Sandia National Laboratories discovered that there were improving trends within the public school system. The final report known as the Sandia Report was never released to the public until an article was made available in the *Journal of Educational Research* in 1993. Pressure to suppress the findings led the country to continue to focus on educational reform (Stedman, 1994).

President Bill Clinton signed into law the Goals 2000: Educate America Act on March 31, 1994. As a cornerstone for educational reform and restructuring, Goals 2000 presented challenges for the public education system and set the year 2000 as the goal for completion. This federal legislation addressed numerous facets of public educational services including preschool, adult literacy, parental involvement, and safer schools. One area that began to emerge as a focal point for educational reform efforts was teacher

professional growth. Professional development opportunities should allow teachers to experience continual development in instructional skills and knowledge (DuFour & Eaker, 1998; Fine, 2011; Goals, 2000).

Legislation has continued to focus on the role of the educator and the professional training and development that is provided for continued growth. President George W. Bush signed into law the No Child Left Behind Act (NCLB). This act reauthorized the Elementary and Secondary Education Act of 1965. Two major aspects of this piece of legislation addressed teachers reaching highly qualified status and school systems being held accountable for increasing graduation rates and subgroups' test scores on achievement tests. More specifically related to this study, NCLB outlined *professional development* as: (a) activities that impacted the educator's knowledge of subject content, (b) were intricate attributes of the school and system-wide improvement plan, (c) high-quality, (d) sustained, (e) intensive, and (f) classroom-focused (NCLB, section 910 (34) A). Legislation had begun to address educator professional development. Empirical evidence to guide those opportunities and activities was not sufficiently available.

Educational reform initiatives are evident within the classroom walls where federal legislation has also focused on the needs and education of students with disabilities. In 1975, Public Law 94-142, the Education of all Handicapped Students Act, addressed students with disabilities receiving a free and appropriate public education. An important aspect of the 2004 reauthorization of Public Law 94-142, known as the Individual with Disabilities Education Improvement Act (IDEIA) was the focus on the educational classroom, curriculum, and location of support services for students with disabilities. This time period opened public school and general education classroom

doors for students with disabilities and greatly impacted the diversity of America's public education student population. A new philosophical approach to education emerged. Scholars and educational experts describe the practice of including students with disabilities in the general educational classroom and curriculum as *inclusion* (Causton-Theoharis & Theoharis, 2008; McDuffie, 2010; Worrell, 2008).

The cornerstone of educational reform is the classroom teacher and the instruction he or she provides. "Research confirms that teacher and teaching quality are the most powerful predictors of student success. The more years that students work with effective teachers, the higher their measured achievement" (Kaplan & Owings, 2004, p. 1). The demand for excellent teacher education and training accompanies the demand for more rigorous standards in instruction. Schlauch (2003) found inadequacies in the preparation of beginning teachers in learning how to best teach students with and without disabilities. Little content and practical experience were provided during educational teaching programs on the topic of instructing students with disabilities for general education teachers. Researchers found when given an opportunity to prioritize their needs, practicing teachers listed content, classroom management, teaching students with disabilities, and technology as their greatest needs (Darling-Hammond & Richardson, 2009). A teacher's belief about his or her ability to effectively instruct students with disabilities is known as teacher self-efficacy for inclusion and is influenced by experiences or lack of experiences and knowledge in educating students with disabilities (Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998). The general education classroom teacher is expected to educate each student no matter his or her educational background and ability level. Reform efforts of legislation, educational organizations, and educators

have combined to place increased instructional challenges on general education teachers as they are faced with educating a diverse mixture of students and students' abilities within their classroom.

Researchers are investigating the role of teacher perceived efficacy or teacher self-efficacy in relationship to teacher attitude and instructional capability to teach students with disabilities. Teacher self-efficacy affects a teacher's perceptions, judgments, and actions or behaviors in the classroom. Bradshaw and Mundia (2006) indicate that many teachers hold positive attitudes about diversity in the classroom yet have low teacher self-efficacy for inclusion. Low self-efficacy for inclusion renders the belief that as a teacher, the teacher does not have the ability to effectively teach students with certain characteristics or in given situations. Teachers with training and previous experience display a higher level of confidence in their teaching ability or display a high level of teacher self-efficacy (Bradshaw & Mundia, 2006; Subban & Shannen 2006).

The strength and effectiveness of the public education system highly depends on effective training and continuous professional development of teachers. Traditional approaches to teacher training and development have proven ineffective to meet the unique and changing needs of general education teachers (Schleicher, 2011).

Presentation style workshops have disseminated a great deal of information within an extremely short time frame that left little room for teachers to apply their learning and develop their skills (McLeskey & Waldron, 2002b; Rebor, 2008).

Reform type professional development activities are moving away from a workshop method to a more interactive approach where active teaching, assessment, observation, and reflective teaching are emphasized (Darling-Hammond, 2006; Nieto,

2009). The delivery of reformed-based professional development has led to a positive impact on teachers, teachers' self-efficacies, and their behavior or instruction. Common characteristics of effective teacher professional development activities include collective participation, content focused on curriculum needs and research based practices, connection to system and school-wide goals, extension over longer period of time to allow for application and practice, and provision of coaching and feedback opportunities (Lyndon & King, 2009; Snow-Rener & Lauer, 2005).

Statement of the Problem

Federal legislation has continued to draw attention to the professional development that is required for practicing teachers. The legislative blueprint for continued educator training has been drawn, and local education agencies are responsible for this maintenance of instructional services for teachers. As local school systems attempt to provide effective professional development, many teachers still indicate professional needs in the area of inclusion and services for students with disabilities. Research links motivation to learn, attempt, and master new skills to levels of self-efficacy (Bandura, 1997; Schaefer, 2010). Little empirical evidence exists to guide administrators in providing effective professional development and the effects of professional development on teachers' self-efficacy for inclusion. Therefore the purpose of this study was to ascertain the relationships that exist between reform-based professional development and teachers' self-efficacies for inclusion.

Significance of the Study

This study was an investigation of the relationships that exist between professional development and teacher self-efficacy for inclusion. Recent studies have addressed the significance of effective teachers in relation to student achievement. Kaplan and Owings (2004) confirmed that the more time students spend with effective teachers, the higher their achievement scores. Higher levels of teacher self-efficacy beliefs are linked to greater teacher efforts and performances. Teacher self-efficacy for inclusion is a major contributor to successful inclusive practices and educational services for all students (Tschannen-Moran et al., 1998).

Professional development is crucial in providing continual updates on effective teaching practices, tools and technology, and providing support in areas of need or interest. Professional development approached through a workshop style presentation has proven ineffective in meeting the needs of teachers (McLeskey & Waldron, 2002b; Reborá, 2008). Massive amounts of information combined with little time for application and continued practice leave a great deal to be desired of traditional workshop professional development (Hunzicker, 2011). Effective professional development is grounded in research-based practices, sustained over time, has collective faculty participation, and is content focused on curricular and teacher needs (Lydon & King, 2009; Snow-Renner & Lauer, 2005).

Limited empirical evidence is available to indicate the significant relationships existing between effective professional development and teacher self-efficacy for inclusion (Rostan, 2009). Investigating the significant relationships that exist between these two constructs will allow for a more informed approach to planning for effective

teacher professional development that supports higher self-efficacy development.

Administrators, professional development facilitators, and teachers may be able to glean the effective attributes of professional development in relation to positively impacting teachers' self-efficacies for inclusion and preparing teachers for successful instructional time in inclusive classrooms.

Research Questions

The quantitative study was guided by the following research questions:

1. Is there a significant correlation between teacher self-efficacy for inclusion scores and the amount of professional development?
2. To what extent do teachers perceive inclusion was emphasized during professional development activities?
3. Is there a significant difference in teacher self-efficacy for inclusion scores based on years taught in an inclusive classroom?
4. Is there a significant difference in teacher self-efficacy for inclusion scores based on total years of teaching experience?
5. Is there a significant difference in teacher self-efficacy for inclusion scores based on highest degree completed?
6. Is there a significant difference in teacher self-efficacy for inclusion scores based on the number of required special education courses for initial certification?

Limitations

This study was limited to 385 elementary teachers of a single school system in east Tennessee. The total population was given the opportunity to participate through a school wide email requesting voluntary participation. A total of 79 participants completed the survey.

Delimitations

Creswell (2009) defined delimitation as “how the study will be narrowed in scope” (p. 106). The findings of this study were limited to the 385 elementary teachers currently employed in one of 14 elementary schools within the same school system located in east Tennessee. Two preexisting instruments, the Teacher Activity Survey and the Teacher Efficacy for Inclusion Scale, were combined to develop the instrument used to conduct this research study. Data were collapsed into four categories based on years of experience in teaching inclusion in order to conduct a one way analysis of variance (ANOVA) to ascertain the significant difference in teacher self-efficacy for inclusion scores based on years taught in an inclusive classroom. Data available for overall teaching experience was collapsed into two groups to perform an independent samples t-test and evaluate the mean for teacher self-efficacy scores. Available data for highest degree completed were collapsed into two groups to perform an independent samples t-test and ascertain the significance of degrees completed in relationship to teacher self-efficacy for inclusion scores. Data available for required number of special education courses for initial certification were collapsed into two groups to perform an independent

samples t test and ascertain the difference in teacher self-efficacy for inclusion scores based on required courses.

Definition of Terms

For the purpose of this study, the following definitions were used:

Efficacy or Self-Efficacy – personal judgment concerning one’s own abilities to carry out and perform as expected (Dodge-Quick, 2011).

Inclusion - “the practice of including another group of students in regular classrooms, those with problems of health and/or physical, developmental, and emotional problems” (Worrell, 2008, p.43).

Professional development – opportunities for professionals to increase their knowledge and skills (Morgan, 2007).

Overview of Study

This quantitative study is organized into five chapters. Chapter 1 includes an introduction, statement of the problem, research questions, definitions of terms used in the study, significance of the study, limitations of the study, and delimitations of the study. Chapter 2 presents the review of literature including: (a) a historical perspective of educational reform through legislation that has addressed professional development and education of students with disabilities; (b) the needs of general educators in teaching students with disabilities and teacher perception of self-efficacy for inclusion; (c) the importance of professional development; (d) and a description of effective professional development. Chapter 3 includes the methods that were used to conduct this study

including the research design, research questions and null hypotheses, population, instrumentation, data collection procedures, and data analysis methods. Chapter 4 provides the findings from the study including tables and figures of research results. Chapter 5 provides an overview of the study including a statement of the problem, further discussion and conclusions drawn from the findings, implications for practice, and implications for future research.

CHAPTER 2

LITERATURE REVIEW

History of Professional Development

The public education system in the United States has been facing calls for reform from politicians, active community members, educators, and the public since the early 1980s. In 1983 the National Commission on Excellence published *A Nation at Risk*, a report pinpointing the public education system's substandard delivery of educational services as a potential risk to national security (DuFour & Eaker, 1998). Public education reform initiatives have focused on existing practices of the educational system that include more testing to determine student learning, the requirement of more credits for graduation, and the requirement of more years of experience for teachers to earn tenure. Although the country was putting forth great effort, public education appeared to continue to produce inadequate results.

A second report made available in 1986, *A Nation Prepared*, addressed restructuring the teaching force, giving teachers greater freedom to determine how to best provide instruction according to student achievement requirements (Harris & Levin, 1992). The United States Secretary of Energy commissioned the Department of Energy's Sandia National Laboratory to further investigate areas of concern exposed by the *Nation at Risk* report. A draft of the Sandia report was completed in 1991 and highlighted the in-depth analysis of subgroups' data. The results rendered a steady growth or small increments of improvement in each performance measure investigated. The final Sandia report was not publicly released until 1993 when the information was included in the May/June issue of the *Journal of Educational Research* (Stedman, 1994).

The reports' contradictions were not given a great deal of attention. Some researchers reasoned that the Sandia report was lacking in credibility due to lack of references within the document and the absence of citations for graphed data, while others noted that its unavailability may be due to politics. This sudden spark of interest indicated that the nation as a whole was growing more interested in public education and producing high achieving students. Reform efforts were focused on student achievement and teachers while guiding the general public to acceptance of the ideas surrounding educational reform and an increase in the role that the federal government would play in such reform (Heise, 1994).

President Bill Clinton signed into law the Goals 2000: Educate America Act on March 31, 1994. Serving as a blueprint for reform and restructuring to improve education by 2000, the legislation addressed preschool education, high school graduation rates, student competency in key academic areas, adult literacy, safe and drug free schools, parental involvement and teacher professional growth, and continual opportunities to develop knowledge and instructional skills for teachers (DuFour & Eaker, 1998; Fine, 2011; Goals, 2000).

Legislative attempts at educational reform have continued to address the role of the educator and professional training or development that is provided for educator growth. In 2001 President George W. Bush signed into law the No Child Left Behind Act (NCLB), an act that reauthorized the Elementary and Secondary Education Act of 1965. Under NCLB, the term *professional development* included activities that made positive contributions to teachers' content knowledge of subjects they teach; are significant parts of the school and system-wide educational improvement plans; give

teachers, principals, and administrators skills and knowledge to provide students opportunity to meet content and achievement standards; are high-quality, sustained, intensive, and classroom-focused; are not short, one-day events; and support the recruitment and hiring of highly qualified teachers (NCLB, section 910 (34)A; Tugel, 2004; Viadero, 2007; Walker, 2010). While NCLB set high standards for educators, empirical evidence to lead professional development decisions along high-quality guidelines was lacking.

The National Staff Development Council (NSDC), renamed Learning Forward in 2011, has a history of investigating policy through research and driving educator development opportunities. “Effective professional development is not about meeting the requirements of a list, it is about carefully considering and planning according to desired outcomes and standards that will contribute to success” (Hirsch, 2006, p. 59). The standards for staff development were originally written as 27 standards and then revised to 12 standards for teacher professional development. In 2011 NSDC made a second and final revision of the 12 standards to 7 standards for professional learning (Learning Forward, 2011). Learning Forward relied on a professional support system of 40 professional educational associations and organizations to develop and update the seven standards that are: learning communities, leadership, resources, data, learning designs, implementation, and outcomes (Learning Forward, 2011). Hirsch (2009) described exercises for professional educators to strengthen their instruction:

Good teaching occurs when educators on teams are involved in a cycle in which they analyze data, determine student and adult learning goals based on that analysis, design joint lessons that use evidence based strategies, have access to coaches for support in improving their classroom instruction, and then assess how their learning and teamwork affects student achievement. (Hirsch, 2009, p. 10)

Learning Forward alongside their professional support system has taken the last decade of research on best practices to continue to provide guidance in professional learning.

Similar goals exist between NCLB and Learning Forward concerning professional development. The establishment of a current agreement in definition, with the ability to drive professional development reform efforts, remains nonexistent. In 2009 Learning Forward, then known as National Staff Development Council, began to advocate for a new definition of professional development by seeking amendments to NCLB legislation. Learning Forward currently defines professional development as, “a comprehensive, sustained, and intensive approach to improving the teachers’ and principals’ effectiveness in raising student achievement” (Hirsch, 2009, p. 12).

Amendments recommended by Learning Forward offer clarity for funding purposes and focus on professional development having a direct impact on student achievement and classroom teachers’ practices (Hirsch, 2009). Aligning the definitions of professional development in legislation and scholarly contributions may impact educational reform.

Educational reform began addressing educator learning and continued growth in 1983 through *A Nation at Risk*, a report focused on America’s educational standing. Legislation began to address educational reform through the passage and implementation of Goals 2000 and NCLB. Standards for delivery of instruction have been increased and require that educators receive more intensive training and results-driven opportunities to increase their own learning. Similar goals for professional development and learning exist between legislation and leading organizations; however, a unified definition of professional development and learning does not currently exist. In order for professional

development and learning to continue to impact educators' capacity to effectively instruct all students, a common definition is needed.

History of Educating Students with Disabilities

Alongside the progression of professional development for teachers, federal legislation has continued to address the needs and education of students with disabilities. In 1975 Congress enacted Public Law 94-142 known as the Education of All Handicapped Students Act. This law was enacted to ensure that students with disabilities could and would receive a free and appropriate education in the public school system. Congress reauthorized this law in 2004 by enacting the Individuals with Disabilities Education Improvement Act (IDEIA). Turnbull, Turnbull, and Wehmeyer (2010) discussed how this act gave students with disabilities increased access to the general education classroom and curriculum by offering guidelines for school systems to include and educate students with disabilities in general education classrooms and according to general education curriculum. This legislation opened the classroom door for students with disabilities and created a more diverse population of students in general education classrooms. In 1997 the Office of Special Education and Rehabilitation Services reported that 71% of students with disabilities were being taught during a portion of their school day in general education classrooms through inclusive practices (deBettencourt, 1999; Kamens, Loprete, & Slosted 2003). Worrell (2008) reported that 76.3% of students with disabilities were educated for some portion of their school day in the regular classroom.

An increasing number of students with disabilities are receiving educational services including assessments and accountability program participation in general

education classrooms (Braden, Huai, White, & Elliott, 2005; Polloway, Lubin, Smith & Patton, 2010). The practice of inclusion refers to actions taken to include a specifically identified group of students in the learning that takes place in a regular education classroom, students with physical or health disabilities, developmental, emotional, or learning disabilities (Worrell, 2008). Inclusion is not merely an option or place for delivery of services, rather inclusion is a philosophy that drives the type of services provided within a school setting (Causton-Theoharis & Theoharis, 2008; McDuffie, 2010). Through the reform efforts of NCLB and IDEIA, general education teachers are faced with new instructional challenges relating to a new mixture of students' abilities, needs, and reform based academic accountability (Causton-Theoharis & Theoharis, 2008; Garet, Porter, Desimone, Birman, & Yoon, 2001; Schleicher, 2011).

Legislation continues to outline the education of students with disabilities. As the number of students with disabilities being educated in general education classrooms increases, so does the possibility for educators to require additional training in instructional strategies that have proven effective for more diverse student populations. Each classroom will continue to have distinct, unique characteristics that the educator will need assistance in identifying and determining appropriate instructional plans to produce adequate learning results for all students.

Teacher Training and Needs

Teachers and the instruction they provide are the cornerstone of educational reform, and the demand for more rigorous standards of instruction leads to greater demand for teacher preparedness. Schlauch (2003) discussed the significance of teacher

education and preparation due to the future impact that teachers and instruction have on students and the nation as a whole. There are inadequacies in preparing beginning teachers to teach students, with and without disabilities, linked to the dual teacher training system (Schlauch, 2003). General education and special education teachers have traditionally been on two different course content paths, which intersect infrequently or not at all (Buell, 1999). In choosing to major in general education or special education, teachers may believe that they are not prepared to work with or do not have the ability to teach students who are under the other umbrella (Brown, Welsh, Hill, & Cipko, 2008; Frattura & Topinka, 2006). In a study surveying preservice teachers' attitudes towards inclusion, Mdikana, Ntshangane, and Mayekiso (2007) found 60% of participants held positive attitudes; however, 72% identified the need for special skills and inclusion resources to be effective.

Future collaborative efforts and relationships in the professional world are difficult due to the separation of received education and training. Cooperative teaching is a practice where one general educator and one special educator share responsibilities in a general education classroom (Scruggs, Mastropieri, & McDuffie, 2007). An investigation of inclusive classrooms where cooperative teaching was practiced found significant needs in regards to planning time, student skill level, and teacher training (Scruggs et al., 2007). This discovery indicated that dual educational training paths further inhibit successful cooperative teaching practices.

General education teachers are not receiving adequate training that prepares them to effectively teach students with disabilities. In an analysis of literature concerning professional development needs, Darling-Hammond and Richardson (2009) connected

several studies where teachers prioritized their professional needs beginning with content, classroom management, teaching students with disabilities, and finally technology. Various interviews of inclusive classroom teachers found little evidence that those teachers were given information concerning students with disabilities and successful inclusive practices (Jenkins & Yoshimura, 2010). These inadequacies call for professional training that is explicitly related to increasing teachers' abilities to teach and support every student in an inclusive classroom, differentiate instruction, and participate in professional collaboration (Boe, Shin, & Cook, 2007; Causton-Theoharis & Theoharis, 2008; Ross, 2002; Schlauch, 2003).

Many general educators lack confidence in their teaching abilities due to training and preparation to meet the needs of students with disabilities in the general education classroom (Jenkins & Yoshimura, 2010; Schlauch, 2003). "Effectively including students in general education requires general education teachers to have the basic knowledge about special education and the skills to teach students with disabilities" (Jenkins & Yoshimura, 2010, p. 2). Self-efficacy is noted as personal judgment concerning one's own abilities to carry out and perform as expected (Dodge-Quick, 2011). A teacher's self-efficacy is that teacher's expectation or belief that he or she will be able to perform as expected and assist students in their learning (Ross & Bruce, 2007). General education teachers' self-efficacies in relation to teaching students with disabilities vary depending on previous training and experience, knowledge, and school culture. A number of general educators continue to report a low self-efficacy for inclusion based on their unpreparedness to effectively teach students with disabilities (Dodge-Quick, 2011; Worrell, 2008).

There is a need to train, equip, and increase teacher self-efficacy in order for teachers to effectively educate and meet the needs of all students. Worrell (2008) states:

A general educator cannot be expected to be successful at teaching in an inclusive classroom without a solid foundation of knowledge about the students' disabilities, educational needs, accommodations, modifications, and the laws that affect both the children with disabilities and the teacher. (p. 45)

Teachers need information and training in order to feel more confident and effectively teach in inclusive classrooms and differentiate instruction (Burgess, 1997; Jenkins & Yoshimura, 2010; Rebor, 2008; Ross, 2002; Schleicher, 2011).

Negative teacher attitudes toward inclusion present the possibility of inclusive efforts being undermined (Burke & Sutherland, 2004; Worrell, 2008). Employed general education teacher attitudes and perceptions were found to have a positive increase based on more time spent in inclusive classrooms and studying content thought to be oriented more toward special education training, including legislation, teaching strategies, collaboration, and social aspects of students (Kossar, 2004). The provision and participation in these mastery experiences increases a teacher's self-efficacy (Bandura 1997). With limited foundational knowledge of special education legislation and teaching strategies, general education teachers require additional guidance related to inclusion through sustained professional development and continued support from administrators (Casale, 2011; Jenkins & Yoshimura, 2010; Wilkins, 2009; Worrell, 2008).

Inclusive practices and implementation occur differently at individual schools based on the philosophy of education held by that school's administrative staff and educators who provide instruction. Taking into account the inclusive culture of the school, professional development should be planned according to the overall needs of the school and focus on very specific student oriented goals (Starnes, 2011). "Inclusive

schools and related professional development activities that prepare teachers for working in these settings must be individually tailored to the unique qualities of a given school” (McLeskey & Waldron 2002b, p. 163).

Public educators receive preservice training and certification through participation and completion of educator programs of study and passing certifying exams. Colleges and universities have dual paths for educators resulting in a preservice teacher decision to major in general education or special education. This dual path system has created a divide among educators in determining whose responsibility it is to educate students with disabilities (Mdikana et al., 2007; Schlauch, 2003). While legislation has opened the general education classroom to students with disabilities, educators may have determined who they are capable of instructing prior to entering the classroom. At the same time, in service educators, who may have received moderate to little training in how to effectively teach diverse classrooms, are expressing their beliefs of inadequacy, or low self-efficacy, to effectively teach students with disabilities (Darling-Hammond & Richardson, 2009; Jenkins & Yoshimura, 2010). General educators’ self-efficacies vary depending on previous training, experience, and school culture. For students to continue to experience success in education, educators need additional resources and opportunities to build their foundational knowledge and perceived ability to effectively educate all students.

Teacher Self-Efficacy

Bandura’s Social Cognitive Theory (SCT) explains human behavior as a dynamic, reciprocal interaction of three sources: personal factors, behavior, and environment (Bandura, 1997). Future behavior is determined by the interaction of these sources in a

triangular experience. Consequences and previous experiences combine to predict both future behavior and how a person regulates his or her continuous behaviors. Grounded in SCT, self-efficacy is a self reflective thought that impacts a person's behavior based on a person's perception of his or her own capabilities and is shaped through experiences and social, physiological, or emotional situations or states. According to Bandura's SCT (1997), a person develops beliefs about his or her own capabilities and characteristics that influence his or her behavior.

Perceived self-efficacy occupies a pivotal role in social cognitive theory because it acts upon the other classes of determinants. By influencing the choice of activities and the motivational level, beliefs of personal efficacy make an important contribution to the acquisition of knowledge structures on which skills are founded. (Bandura, 1997, p. 35)

General education teachers do not always believe they are prepared to teach students with disabilities within the general education classroom. This belief of inadequacy negatively affects the general education teacher's self-efficacy for inclusion revealing the need for additional training and support (Wood, 2007). Bandura has been on the forefront of personal efficacy research and states that, "beliefs of personal efficacy constitute the key factor of human agency. If people believe they have no power to produce results, they will not attempt to make things happen" (Bandura, 1997, p. 3). Human agency refers to intentional action as opposed to the effects of the action. Self-efficacy is a judgment or belief of a person's ability to act. For teachers, self-efficacy is the teacher's judgment or belief concerning his or her ability to teach. Student learning is the effect or consequence of that teaching ability (Bandura, 1997).

Tschannen-Moran et al. (1998) linked higher levels of efficacy beliefs to greater efforts and performances by teachers. Bandura (1997) dissected the influence of self-

efficacy beliefs on behaviors into four processes: cognitive, motivational, affective, and selection. The cognitive aspect of self-efficacy occurs first in forethought through the form of goal setting and later as reflection. “Personal goal setting is influenced by self-appraisal of capabilities. The stronger the self-efficacy, the higher the goal challenges people set for themselves and the firmer is their commitment to them” (Bandura, 1991). Motivation occurs in and is guided by forethought. Bandura discussed three forms of motivation where self-efficacy beliefs operate: casual attributions, outcome expectancies, and cognized goals. People are motivated or unmotivated based on their level of self-efficacy. Those who have high self-efficacy relate failure to effort and those with low self-efficacy relate failure to ability. People are motivated to act based on their self-efficacy and that behavior will lead to an expected outcome. Finally, people are motivated as a result of planning and reflecting on personal goals (Bandura, 1993).

Bandura (1997) categorized four sources of efficacy beliefs: mastery experiences, vicarious experiences, social persuasion, and physiological and emotional states. The most significant source of efficacy information occurs in mastery experience or personal attainments (Usher, 2008). When a person is developing a skill and notices gradual personal improvement over time, his or her self-efficacy is increased. “A resilient sense of efficacy requires experience in overcoming obstacles through perseverant effort” (Bandura, 1997, p. 80). Facing difficulties and working through them builds people’s self-efficacy because they have experienced the mastery of the skill and feel confident in their ability to do so again. The second greatest source of efficacy information stems from vicarious experience where a person is able to observe another modeling an action.

A lead person will model correct behavior and thought in obtaining information of knowledge, skills, and strategies in vicarious experience (Bandura, 1997).

Another source of efficacy information stems from social persuasion. This source is particularly noticeable in studies of adolescent students. In this life stage, social persuasion is very impactful upon one's beliefs about self. Students may compare themselves to peers or adults and make judgments about their own abilities (Usher, 2008). "People who are persuaded verbally that they possess the capabilities to master given tasks are likely to mobilize greater effort and sustain it than if they harbor self-doubts and dwell on personal deficiencies when difficulties arise" (Bandura, 1997, p. 101). People also rely on information available from physiological and emotional states to judge their capabilities. A person may read his or her bodily reaction to a stressful situation as capable or as incapable. Emotional states or moods also provide efficacy information through indications in the change of functional quality. More intense positive moods are usually related to past accomplishments and negative moods are typically associated with past failures (Bandura, 1997).

Teachers' self-efficacies in regards to motivation and the promotion of learning affects their creation of learning environments. Students' academic progress and achievements are influenced by created learning environments (Bandura, 1993). "Efficacy is a generative capability to which cognitive, social, emotional, and behavioral sub skills must be organized and effectively orchestrated to serve innumerable purposes" (Bandura, 1997, p. 37). How the skills are organized and used effectively produces the desired outcome. Teachers who possess a lower self-efficacy for inclusion may indicate

a desire or need for additional professional development opportunities related to inclusive practices.

Social Cognitive Theory (SCT) explains human behavior as a triadic, dynamic, and reciprocal interaction of personal factors, behavior, and environment (Bandura, 1997). Previous experiences and consequences of behavior influence future behavior and how a person chooses to regulate behavior. In relation to teacher self-efficacy, the perception of a teacher's ability, SCT suggests that a teacher develops beliefs about his or her own capabilities and characteristics that influence educational behaviors. General education teachers do not always believe that they are trained or capable of effectively teaching students with disabilities within the general education classroom. A negative or low teacher self-efficacy for inclusion reveals the need for additional training and support through professional development opportunities (Wood, 2007). Tschannen-Moran et al., (1998) linked high efficacy beliefs to greater effort and performances by teachers. Self-efficacy is developed through mastery experiences, vicarious experiences, social persuasion, and physiological and emotional states. Mastery experience provides the most impactful self-efficacy development opportunities (Usher, 2008). During the mastery of a skill found in mastery experience, a person notices gradual improvements and changes in behavior over time and thus increases his or her self-efficacy in relation to said skill (Bandura, 1997). Professional development opportunities for educators to improve their knowledge, skill levels, and experience mastery of best practices are highly significant in the quest for educational reform.

Importance of Professional Development

Professional development opportunities are essential in every profession to increase efficiency and the ability to compete in a global economy (Walker, 2010). The teaching profession is not beyond the need for improvement. Legislation has laid the groundwork for improvement by requiring educators to receive professional development as student teachers and inservice teachers. A professional development activity has the responsibility of addressing the needs of teachers and students through meeting legal requirements, expanding content knowledge, developing curriculum, and encouraging best practices for instructional and managerial strategies within the classroom. High quality teachers provide excellent educational opportunities that yield students who are successful learners (Kaplan & Owings, 2004).

Vogel (2006) suggested that quality professional development for educators has a greater impact on student achievement in comparison to higher teacher salaries and smaller teacher-to-student ratios. The purpose behind effective professional development is to positively impact behaviors of teachers and in turn, have a greater impact on learning and student achievement (Darling-Hammond & Richardson, 2009; Jakes, 2008; Walker, 2010; Wenglinsky & Silverstein, 2006). An administrator will wisely invest in the development of educators to bring about change and increase the quality of education and learning (Kaplan & Owings, 2004; Linn, Gill, Sherman, Vaughn, & Mixon, 2010). Donaldson (2010) suggested a rigorous teacher evaluation system that provided feedback and was linked to professional development in order to increase effective educational practices. Learning Forward recommends school districts spend approximately 10% of their annual budget on professional development (Vogel, 2006). Increasing financial

support for professional development accompanied by employing quality programs and activities will strengthen reform efforts (Braden et al., 2005; Dede, Ketehut, Whitehouse, & Breit, 2008).

Causton-Theoharis and Theoharis (2008) documented how student learning improved after policies, procedures, curriculum, and instruction were shifted to support all learners. The noted challenge for teacher professional development is to provide the opportunity for teachers to deepen their understanding of the learning process and continuously develop instructional approaches that support learning (Walker, 2010). Student success is largely dependent upon the teacher's ability to instruct every student, collaborate with fellow educators, and continue to develop and build his or her own abilities, skills, and knowledge. There is a great need for continuous professional development that supports both general education and special education teachers, especially relating to effective instruction and inclusive practices that will have a positive impact on teachers' self-efficacies for inclusion (Schlauch, 2003; Worrell, 2008).

Sallee (2010) reported a direct correlation between professional development activities and teaching practices by describing activities of schools reaching distinguished status. Those schools that were distinguished held professional development activities that included an analysis of instructional practices, used data, emphasized collaboration, used similar instructional strategies, and allowed for evaluations of the activities by participants. "Schools and districts should challenge each teacher to develop, apply, and reassess beliefs and knowledge gained in professional development in the content of their own classrooms so that attitudes, knowledge, and practice are truly integrated" (Weiner,

2003, p. 18). This is echoed in Bandura's description of the development of self-efficacy through mastery and vicarious experiences (Bandura, 1997).

Preparing educators for every situation that may occur during their tenure is impossible for teacher training programs. Professional development is crucial for educators to continue increasing their knowledge and instructional skills based on their current needs, the needs of their students, and best-practice research. The practice of educating all students through the practice of inclusion has slowly taken place through restructuring of policies, procedures, curriculum, and instruction in the general education classroom. Educator support and guidance to reach this reformation is necessary through implementation of effective professional development programs and plans.

Effective Professional Development

Educational success is when students learn and continue to develop skills, knowledge, and love of learning throughout their lifetime. "Research confirms that teacher and teaching quality are the most powerful predictors of student success. The more years that students work with effective teachers, the higher their measured achievement" (Kaplan & Owings, 2004, p. 1). Effective training and professional development of teachers are vital to the strengthening of the public education system. Traditional approaches to teacher development have proven ineffective and teacher education simply is unable to prepare teachers for every challenge they may face throughout their career (Schleicher, 2011).

For decades, professional development was approached through presentation style workshops that left little room for teachers to apply new information to their instruction

while receiving ongoing support for those changes to take effect. Professional development workshops have minimal effects on participants and students (McLeskey & Waldron, 2002b; Reborá, 2008). Hunzicker (2011) relates the ineffectiveness of workshops to the great amount of information disseminated during the presentation with little time for real classroom application. The lack of desired results from traditional professional development workshop attendance stems from transferability of unfocused content, lack of intensity, and lack of continual uniformity found to produce changes in behavior (Braden et al., 2005; Choy, Chen, & Bugarin, 2006; Linn et al., 2010). These vicarious experiences are influential in building self-efficacy. Mastery experience is maintained as the most beneficial avenue to impacting self-efficacy (Bandura, 1997).

The history and deliverance of professional development has not met the needs of teachers (Schleicher, 2011). In 2007-2008 the Organization for Economic Co-operation and Development conducted the Teaching and Learning International Survey. In this study 23 countries and 2 million teachers were represented. Participating teachers indicated they still had unmet needs in being prepared to instruct heterogeneous learning groups and other challenges they face (Schleicher, 2011). Finding new tools in teacher training is a necessity for the improvement and effectiveness of public education. There is a move away from traditional professional development workshops, where the style is presentation centered and focused on providing a vicarious experience, to a more interactive approach. “The most useful professional development emphasizes active teaching, assessment, observation, and reflection rather than abstract discussions” (Darling-Hammond, 2006, p. 46). Studies suggest that effective professional development efforts are guided by research, occur throughout the calendar year, are

collaborative, and center active participation around instruction within the context of the learning (Holmes, Singer, & MacLeod, 2011).

Effective professional development occurs when there is collective participation; content is focused on curriculum needs and research-based practices; connected to system and school wide goals; extended over a period of time to allow for active learning and practice; follow-up activities include coaching, with feedback opportunities and additional development activities (Lyndon & King 2009; Snow-Renner & Lauer, 2005). These characteristics are found in the mastery experiences known to positively impact self-efficacy (Bandura, 1997). In contrast to the traditional one-day workshop, professional development activities that are sustained over time are more likely to impact teacher behavior and allow for implementation of current teacher and student needs (Garet et al., 2001).

Educational leadership is approaching the planning, design, and provision of teacher professional development through strategic implementation of educational reform strategies. Administrators are informing themselves on the needs of staff through revision of data and teacher input. Research supports schools and school districts including classroom teachers in the planning of professional development by allowing them to identify their needs and work with colleagues to meet goals (Chauvin & Eleser, 1998; Jenkins & Yoshimura, 2010; McLeskey & Waldron, 2002b; Nieto, 2009).

The need for continuous professional development hinges on the constant review of student data and changes in teacher self-efficacy that were not obvious before. McLeskey and Waldron (2002a) state, “the most effective strategy to ensure continued improvement is to provide ongoing professional development” (p. 169). Wiliam (2007)

addressed the concept of formative assessment. He suggested that student learning had the ability of increasing at a fast pace if this type of reform strategy is implemented beyond benchmark data and is a supplement to further shape instruction and needed professional development. Monitoring student and teacher data will provide links between professional development, implementation, teacher capability, continual development of teacher self-efficacy, and student success (Casale, 2011).

Stephenson, Carter, and Arthur-Kelly (2011) discussed implementing six principles of professional development to sustain new teaching practices: practical and concrete practice, clear guidelines, realistic degree of change, feedback on performance, collaboration with researchers on data, and mutual support available for teachers. Increasing time spent on professional development does not by itself increase the quality of training (Guskey, 2009). Effective professional development must be well organized and structured to meet the needs of the district, while conveying the purpose of the development to the participants (Casale, 2011; Guskey, 2009). The content and types of activities that occur during teacher development are influential in developing teacher knowledge and instructional skills. Reform activities and increased contact hours have had a positive influence on teacher skills. Mastery and vicarious experiences or, “hands-on work that enhanced teachers’ knowledge of the context and how to teach it produced a sense of efficacy – especially when that content was aligned with local curriculum and policies” (Darling-Hammond & Richardson, 2009, p. 47).

The most effective predictor of educational success is the teacher and the quality of instruction provided (Kaplan & Owings, 2004). Traditional workshop style approaches to professional development of educators have proven ineffective (Schleicher,

2011). Workshop methods disseminate a great deal of information in a short time span, allowing for little, if any, real time application (Braden et al., 2005; Choy et al., 2006; Linn et al., 2010). Research is guiding professional development to emphasize active participation, review and use of student and teacher data, and time for reflection and evaluation (Holmes et al., 2011). These characteristics are important in their contribution to effective change in teacher instruction and require additional resources of time and money. Administrators need to understand the importance of teacher input in planning development opportunities in addition to understanding and creatively tackling barriers to professional development (Chauvin & Eleser, 1998; Jenkins & Yoshimura, 2010; McLeskey & Waldron, 2002b; Nieto, 2009).

Barriers to Professional Development

Colleges and universities that educate and train preservice teachers have the responsibility of establishing a professional relationship of collaboration for delivery of educational services to all students (Schlauch, 2003). Public education systems should follow suit with continuing professional development opportunities to support collaboration of educators in the field and meet professional development requirements of *No Child Left Behind*. Snow-Renner and Lauer (2005) reported that a substantial change in teacher behaviors occurred with 160 hours of professional development. The amount of required professional development varies between states.

Teachers report that there is little incentive to participate in reform efforts (Schleicher, 2011). Lyndon and King (2009) report that time to implement, support from school administration, and cost are all barriers to continuous professional development.

School culture is another limitation to effective professional development. Individual teachers and students have varying needs that greatly impact the strengths and weaknesses of the school as a whole. This information should drive administrative decisions concerning professional development. Strategies that prove effective in one school might not be applicable in another based on unique needs and beliefs. Many teachers are accustomed to working alone and this approach to instruction places great limitations on their knowledge, experience, and implementation of best practices (Guskey, 2009; Jolly, 2007).

Barriers that exist to successful implementation of effective, reform-type professional development must be understood and redirected in order for the public educational system to move beyond its current state. Stronger partnerships between public school systems and universities, in addition to more collaborative relationships within school buildings, may allow for greater support of educators (Guskey, 2009; Jolly, 2007). The school's calendar should reflect high priorities including professional development and time for implementation. As administrative staff consider the school's cultural needs and plan for professional development, efforts to provide additional incentive in the form of support or recognition for educator participation in development activities should also be considered (Lyndon & King, 2009; Schleicher, 2011). Administrators and school districts that implement reform type professional development plans must take numerous considerations into account.

Professional Learning Communities

Obstacles to strengthening public education may be overcome with efforts to reform education through professional development. "By locating opportunities for

professional development within a teacher's regular work day, reform types of professional development may be more likely than traditional forms to make connections with classroom teaching, and they may be easier to sustain over time" (Garet et al., 2001, p. 921). Professional development opportunities during regular teacher work hours and work calendar may offer the ability to build mastery and vicarious experiences based on immediate needs. Potential educational improvements may have the power to impact change when teachers and students participate in continuous learning throughout the entire calendar year (Walker, 2010).

Professional learning communities (PLCs) are a growing style of professional development that meets legislative, reform-based criteria for professional development. Learning communities address teacher learning and affect teacher behavior by providing opportunities for collaboration and reflection during real time implementation of new practices and are proving to be an effective form of professional development (Darling-Hammond & Richardson, 2009; Wiliam 2007-2008).

In these small, building-based groups, each participating teacher develops a specific plan for what he or she wants to change in his or her classroom practice. The groups meet regularly to support team members in carrying out and refining their plans. (Wiliam, 2007, p. 30)

Traditional methods of teacher development may increase teachers' knowledge of best practices and updated curricular information, which may be further addressed throughout the year in the professional learning community (Chappuis, Chappuis, & Stiggins 2009).

DuFour and Eaker (1998) state, "the most promising strategy for sustained, substantial school improvement is developing the ability of school personnel to function as professional learning communities" (p. xi). Adopting this new approach which appropriately matches American society and its goals requires school systems to move

away from industrial foundations toward a new blueprint of operation and learning for teachers and students. This new structure requires adequate time for teachers to collaborate, observe, mentor, analyze data, and implement best practices (Casale, 2011; Darling-Hammond & Richardson, 2009). Graham (2006) discusses how professional development that was content focused, involved active learning, and was coherent demonstrated strong, positive relationships to teachers' change in knowledge and skill level. Schools are encouraged to take advantage of resources available within the school building through use of teacher expertise to strengthen leadership and the capacity for growth through building professional learning communities (Jakes, 2008). Efforts for this type of restructuring begin with system-wide and school-level administrators.

The role of the administrator is crucial in the success of a professional learning community (Casale, 2011). Darling-Hammond and Richardson, (2009) note the needs of professional learning communities to include: smaller school size, common planning time, supportive leadership, mutual respect, and a culture that invites new approaches and implementation of best practices. Administrators should focus on encouraging change in the school culture and structure by conveying expectations and restructuring a system of shared understanding, values, vision, and mission (Chappuis et al., 2009; DuFour & Eaker 1998). DuFour and Eaker (1998) also encouraged school personnel to question the current environments through collective inquiry and learning to learn from one another. This approach to educational reform should be seen as continuous learning for teachers. "Not getting in shape, but staying in shape" and building on what is proven effective and driven by the known needs of the school through ongoing assessment (DuFour & Eaker, 1998, p. 26). Participation should be expected by each member of the staff, in order to

avoid isolation, and administration should be careful to include special education teachers on different teams to further strengthen the breadth of knowledge and experience available to team members (Casale, 2011; Hansen, 2007; Schmoker, 2001).

Administrators should adhere to structured and scheduled teamwork, demonstrate research and strategies known to produce learning, and continuously evaluate student and teacher learning (Schmoker, 2001). Wiliam (2007-2008) suggests planning a learning community to grow into maturity in at least 2 years by starting with volunteers who are organized into small groups of 8 to 10 with similar teaching assignments. He also suggests that building level teams should meet on a monthly basis for more than 1 hour and with detailed action plans to drive meetings and provide ongoing development. Facilitators should be chosen with care and provided with adequate support of informative data and materials (Chappuis et al., 2009; Wiliam, 2007).

Online learning is one avenue currently available for continuous professional development. Online learning offers convenience of attendance through dissolving time constraints of school hours of operation. Attendees may participate at their convenience and the continuous provision allows for reflection, application, and discussion with fellow educators (Dede et al., 2008; Vogel, 2006). Online professional development is growing more popular due to accessibility for teachers and affordability for school systems that is unmatched in any other type of development activity (Fisher, Schumaker, Culbertson, & Dishler 2010; Holmes et al., 2011). Holmes et al. (2011) suggest that online learning experiences and quality professional development “demands experiences that are purposefully designed, situated in rich contexts centered in classroom instruction, and successfully integrated with powerful learning tools for teaching and learning” (p.

77). Participation in lectures and online discussions builds vicarious experiences through transfer of knowledge and reinforces the use of new strategies (Vogel, 2006). This new form of communication and professional development requires teachers to develop skills in collaboration and valuing the collective experience of a group of educators.

Professional development opportunities have traditionally occurred in short-time spurts throughout the school year with little time for teacher application and reflection. Research supports the provision of learning opportunities for educators alongside their students (Walker, 2010). Professional learning communities are one avenue of professional development reform that may meet the needs of the educators and schools nationwide. These communities should be based on educator action plans, meet regularly throughout the school year, and provide peer support and guidance related to action plans. In order for the implementation of professional learning communities to succeed, school administrators and communities must recognize the need for additional time for teacher collaboration, observation, mentoring, data review, and overall implementation.

Summary

The National Commission on Excellence published a report in 1983, *A Nation at Risk*, which focused on the substandard delivery of educational services as a risk to national security (DuFour & Eaker, 1998). Federal legislation began to focus on teacher training and development through the passage and implementation of Goals 2000 and NCLB. Legislation and professional organizations guiding teacher professional development did not establish a current agreement in definition. Research has continued

to outline the effective attributes and characteristics of reform-based professional development.

Alongside the progression of professional development for teachers, federal legislation has continued to address the needs and education of students with disabilities. An increase in students with disabilities receiving educational services within the general education classroom setting has been observed. Through legislative reform efforts, general education teachers are faced with new instructional challenges relating to the practice of inclusion and effective instruction.

General education teachers may believe that they are not prepared to teach students with disabilities within the general education setting. This belief of inadequacy negatively affects the teacher's self-efficacy for inclusion revealing the need for additional training and support (Wood, 2007). Studies outline the characteristics of effective professional development that is available in nontraditional forms of delivery. Effective professional development opportunities are vital to the strengthening of current educators' instructional skills and knowledge.

CHAPTER 3

METHODOLOGY

This chapter is a description of the methodology and procedures used to conduct this quantitative study of the important relationships between professional development and teacher self-efficacy for inclusion. A description of the research design, research questions and null hypotheses, population selection, instrumentation, data collection procedures, data analysis procedures, and a summary of the chapter are included.

The research design is an important component of any study. According to McMillan and Schumacher (2006) the research design chosen serves as the foundation to build a strong study and guides the project in order to obtain the most valid, credible conclusions drawn from the answers to the research questions. A quantitative research design was chosen for this study. Quantitative research designs can be divided into two subclassifications of experimental or nonexperimental. In an experimental design, an intervention to manipulate the environment is included and used in the research study. In a nonexperimental design, relationships are examined as they exist without any manipulation to the environment. For the purpose of this study the quantitative research design was characterized into the subclassification of nonexperimental. A survey was administered to collect data pertaining to professional development participation and teacher self-efficacy for inclusion. There was no direct manipulation of environment, nor was there any direct control over participants' responses to survey items (McMillan & Schumacher, 2006).

Quantitative research is an avenue for testing objective theories by examining relationships among variables (Creswell, 2009). Variables for this study consisted of responses to survey items collected from participants on the Professional Development and Teacher Efficacy for Inclusion Survey (PDTEIS). Collected data for this study were demographic information, professional development participation information, professional development activity information, and individual responses to the Teacher Efficacy for Inclusion Scale known as dependent variables.

Data were used to ascertain significant relationships existing between professional development and teacher self-efficacy for inclusion. The comparison between years of teaching experience, highest degree obtained, preteaching requirements, and professional development information was cross tabulated with scores on the Teacher Efficacy for Inclusion Scale as documented on the survey instrument developed for this study. Results were recorded using descriptive and comparative designs and were reported in a narrative format containing figure and table references for further clarification.

Research Questions and Null Hypotheses

The quantitative research design guided the following research questions and null hypotheses.

Research Question 1: Is there a significant correlation between teacher self-efficacy for inclusion scores and the amount of professional development completed?

Ho1: There is no significant correlation in teacher self-efficacy for inclusion scores based on the amount of professional development completed.

Research Question 2: To what extent do teachers perceive inclusion was emphasized during professional development activities?

Ho2: Teachers did not perceive inclusion was significantly emphasized during professional development activities.

Research Question 3: Is there a significant difference in teacher self-efficacy for inclusion scores based on years taught in an inclusive classroom?

Ho3: There is no significant difference in teacher self-efficacy for inclusion scores based on years taught in an inclusive classroom.

Research Questions 4: Is there a significant difference in teacher self-efficacy for inclusion scores based on total years of teaching experience?

Ho4: There is no significant difference in teacher self-efficacy for inclusion scores based on total years of teaching experience.

Research Question 5: Is there a significant difference in teacher self-efficacy for inclusion scores based on highest degree completed?

Ho5: There is no significant difference in teacher self-efficacy for inclusion scores based on highest degree completed.

Research Questions 6: Is there a significant difference in teacher self-efficacy for inclusion scores based on the number of required special education courses for initial certification?

Ho6: There is no significance difference in teacher self-efficacy for inclusion scores based on the number of required special education courses for initial certification.

Population

The population involved in this study was all elementary school teachers in one East Tennessee school system, as reported by the elementary supervisor for the system. The school system is located in a non-farm, rural setting with a total elementary teacher population of approximately 385 teachers. The elementary teachers volunteered for participation in this study by completing the web-based survey. These elementary teachers were employees of the school system and certified teachers who were presently teaching in grades preschool through fifth grade.

Instrumentation

The role of this researcher was to investigate related phenomena that existed between professional development and elementary teachers' self-efficacies for inclusion in a school system in East Tennessee. As a collector of information, I located and modified two preexisting surveys with permission of their authors in order to obtain information pertaining to participation in professional development and continued teacher needs.

The Teacher Activity Survey and the Teacher Efficacy for Inclusion Scale were combined to develop the Professional Development and Teacher Efficacy for Inclusion Survey (PDTEIS) used to conduct this research. According to Garet et al. (1999), the Teacher Activity Survey was used as part of the national evaluation of the Eisenhower Professional Development Program. The Eisenhower program has been a major source of funding for professional development opportunities for mathematics and science teachers. Districts that received the Eisenhower funding were used to conduct the evaluation and

collect data concerning effective professional development. The researchers obtained an 80% response rate for the Eisenhower evaluation. Kwang Suk Yoon, one of the coauthors, was available for personal communication and gave verbal permission for the Teacher Activity Survey to be modified and used in this research study.

The second instrument used in this research was the Teacher Efficacy for Inclusion Scale designed and validated by Hollender (2011) as a component of his doctoral dissertation presented to the City University of New York. This preexisting instrument was modified and used with permission from Hollender. Hollender reported a teacher efficacy scale display of high level of alpha reliability (.94). The construct validity of the scale was reported ($r = .83$) through high contrast with a general measure of teacher efficacy. A sample of 60 elementary school teachers, grades kindergarten through fifth, was used to conduct the study.

The Professional Development and Teacher Efficacy for Inclusion Survey was presented to a jury of experts prior to administration. The jury consisted of five professional educators that included: one supervisor, two building level administrators, and two elementary teachers. This jury was selected to review the survey and determine the survey's ability to efficiently and effectively secure responses that could be accurately quantified. The jury accepted the survey to deliver secure responses.

Creswell (2009) emphasized the significance of the researcher in following ethical guidelines and attending to standards set forth in Institutional Review Board (IRB) permission procedures. I contacted the Director of Schools to obtain permission for this research study to be conducted in the school system. Application to East Tennessee State University's Institutional Review Board (IRB) was submitted and permission to conduct

the research study was granted. A follow-up contact was made with the Director of Schools to inform him of the actual administration of the survey.

There are threats to internal and external validity of an instrument (Creswell, 2009). For the purposes of this research project, participants were selected as a total population of elementary teachers to avoid certain characteristics of predisposition and to protect internal validity. Due to the population and sample representing public, elementary school teachers in grades preschool through fifth grade, generalizations beyond these characteristics would be considered a threat to external validity and were avoided.

Data Collection

Ethical and legal considerations are significant to the health of a research project. Negative and costly situations may exist for participants and must be weighed against the potential benefits for the participant (McMillan & Schumacher, 2010). Ethical and legal principals addressed during this research project included full disclosure of the purpose of the research and any risks associated with the study, voluntary participation, and informed consent. After East Tennessee State University's IRB granted permission for the research, the Director of Schools was contacted a second time for notification of the administration of the PDTEIS within the school system.

An email was sent to all building level administrators in each of the 14 elementary schools. The email detailed a summary of the research study, a request to forward a participation invitation to all elementary teachers, and included a link to the survey instrument. A time frame of 3 working days was established for completion.

Respondents then received the invitation email via their building level administrator. The initial email invitation and request for voluntary participation was accompanied by an explanation of the research study, procedures for volunteer participation, possible risks, anonymity, and consent. As participants, teachers were instructed to click on the available Internet link to the research survey indicating their consent for volunteer participation. Upon completion of the survey, participants were exited out of the survey. After 3 days, a follow-up email requesting voluntary participation was emailed to building level administrators and forwarded to individual elementary teachers. This follow-up email included information about the research study, voluntary participation, anonymity and a link to the survey.

Data were collected through the web-based survey service of Survey Monkey. The data collection was closed and data were analyzed. Initial raw data and totals were made available through Survey Monkey services. Data were entered by the researcher into *Microsoft Excel* and analyzed using *International Business Machines Statistical Packages for the Social Sciences (IBM SPSS)*.

Data Analysis

Data for this research project were analyzed through quantitative methods. *Microsoft Excel* and *IBM SPSS* were used to find the statistical calculations of this study. The data sources analyzed were Teacher Efficacy for Inclusion Scale scores, responses to certifications held, responses to attendance of professional development, and participation in professional development activity types. The research questions make

comparisons between participants' responses on the completed PDTEIS instrument to establish relationships between predictor variables and dependent variables.

In order to address Research Question 1 a Pearson correlation was computed to determine the correlation between the amount of professional development and the teacher self-efficacy for inclusion score. Research Question 2 was addressed by the use of a one tailed single sample t test. Research Question 3 was addressed by the Analysis of Variance (ANOVA) procedure. Research Questions 4, 5, and 6 were addressed by a series of independent t tests. All data were analyzed at the .05 level of significance.

Summary

Chapter 3 presented the methodology and procedures used to conduct this study. A quantitative, nonexperimental research design was chosen for this study. The PDTEIS was designed through the incorporation of two pre-existing surveys: Teacher Activity Survey and Teacher Efficacy for Inclusion Scale. Items were developed or modified to address areas of interest for this study. A jury of experts reviewed the PDTEIS in order to establish face validity and accepted the instrument to efficiently secure responses that can be accurately quantified. Chapter 4 provides the findings from the study including tables and figures of research results.

CHAPTER 4

FINDINGS

The purpose of this study was to define the significant elements or characteristics of reform-based professional development and their relationship to teacher self-efficacy for inclusion scores of public educators within the 14 elementary schools of one school district in East Tennessee. The data were collected from the PDTEIS, Professional Development and Teacher Efficacy for Inclusion Survey, a web-based survey developed by modifying and combining two preexisting instruments. The survey was made available to each elementary school teacher through his or her school email account. The survey consisted of 16 questions pertaining to information on demographics, teaching experience, certifications and degrees, professional development activities and content, and personal beliefs about teaching in an inclusion classroom.

Respondent Demographics

The survey was completed by 79 elementary teachers in the school system, representing 20.6% of the total eligible elementary teacher population. An elementary teacher was considered to be an employee of the school district and school currently teaching in grades preschool through grade five. Of the elementary teachers who completed in the survey 91.1% were female and 8.9% male with 100% of participants reporting their ethnicity as Caucasian, not of Hispanic origin. Participants' total years of teaching experience were reported as 31.7% ten years or fewer and 68.3% eleven years or more of teaching experience. The total years of teaching experience in an inclusive

classroom were reported as 60.8% teachers having taught 10 years or fewer in an inclusive classroom and 39.2% teachers having taught 11 years or more in an inclusive classroom. Respondents were given the ability to mark one or more certifications. The certifications were reported as 81.0% certified to teach elementary, 21.5% special education, and 10.1% preschool, 22.8% middle school, 12.7% secondary, 20.3% principal, 3.8% supervisor, and 11.4% specific subject. Degrees completed were reported as 24.1% of respondents completing a bachelor's degree and 75.9% completing a graduate degree.

Results

The six research questions presented in Chapter 1 were used to frame the study. The six hypotheses presented in Chapter 3 were used to test the data.

Research Question 1

Is there a significant correlation between teacher self-efficacy for inclusion scores and the amount of professional development completed?

Ho1: There is no significant correlation in teacher self-efficacy for inclusion scores based on the amount of professional development completed.

A Pearson correlation coefficient was computed to test the relationship between teacher self-efficacy for inclusion scores and the amount of professional development. The results of the analysis revealed no significant correlation [$r(78) = 0.107$, $p = 0.345$]. The null hypothesis was retained. In general, the results suggest that the amount of professional development participation was not related to specific teacher self-efficacy scores. The scatterplot below illustrates the relationship between teacher self-efficacy for

inclusion scores and the amount of professional development activities (Figure 1).

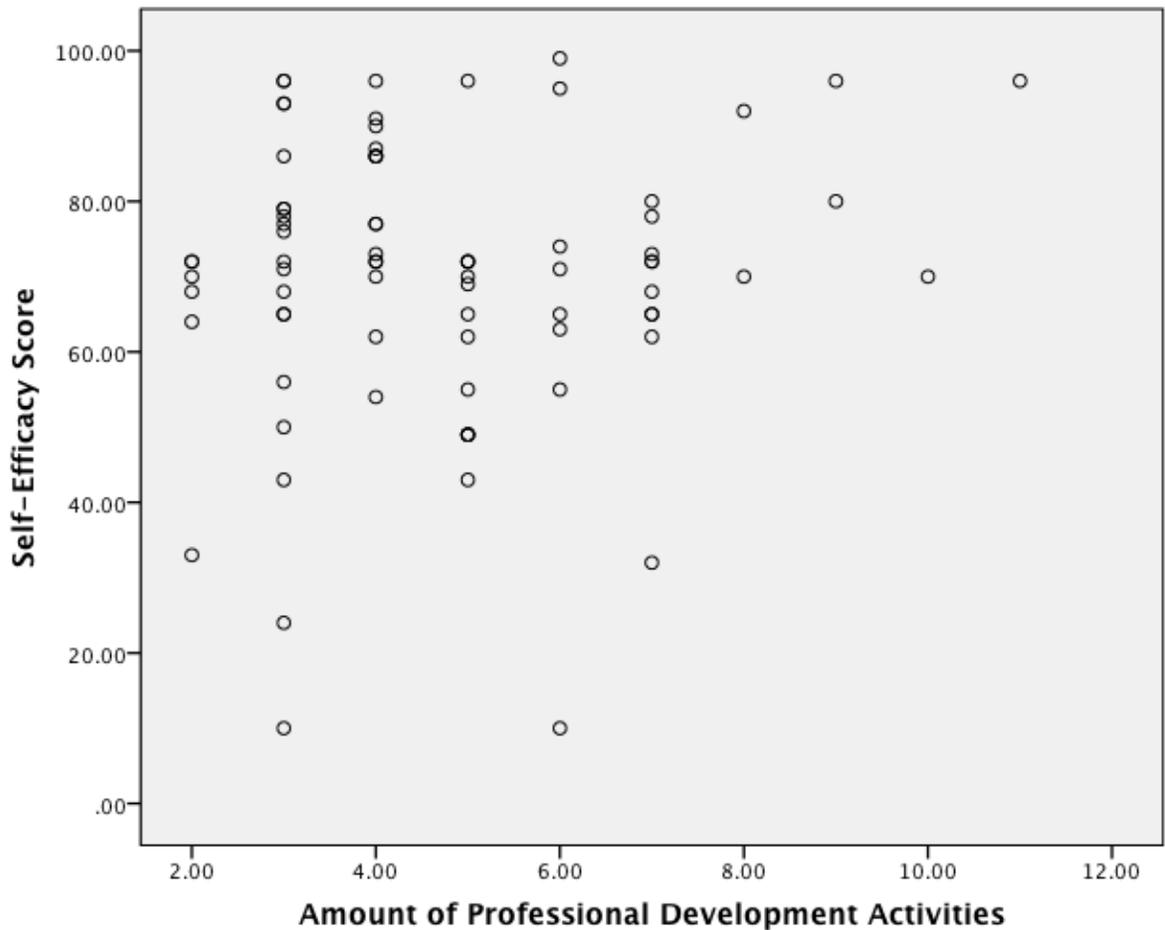


Figure 1. Scatterplot showing the relationship of teacher self-efficacy for inclusion scores to the amount of professional development activities

Research Question 2

To what extent do teachers perceive inclusion was emphasized during professional development activities?

Ho2: Teachers perceived that inclusion was not significantly emphasized during professional development activities.

A one tailed single sample t test was computed to represent the extent that teachers reported a perception that inclusion was emphasized during professional

development activities ($M=1.72, SD=1.14$). The test was significant, $t(78) = 2.17, p = 0.03$. The null hypothesis was retained due to findings that teachers reported a perception that inclusion was not emphasized during professional development activities reflected in the findings where the p value fell significantly below the midpoint value of 3. The 95% confidence interval of the difference was represented in the lower with a value of -0.54 and the upper with a value of -0.02.

The topics in order of emphasis were curriculum standards and frameworks, differentiated instruction and formative assessment tied for second place, data skills, use of technology in classroom, increasing knowledge of subject matter, leadership skills, interpersonal skills, inclusion, and legislation. Figure 2 represents the findings where teachers reported that inclusion was not significantly emphasized during professional development activities.

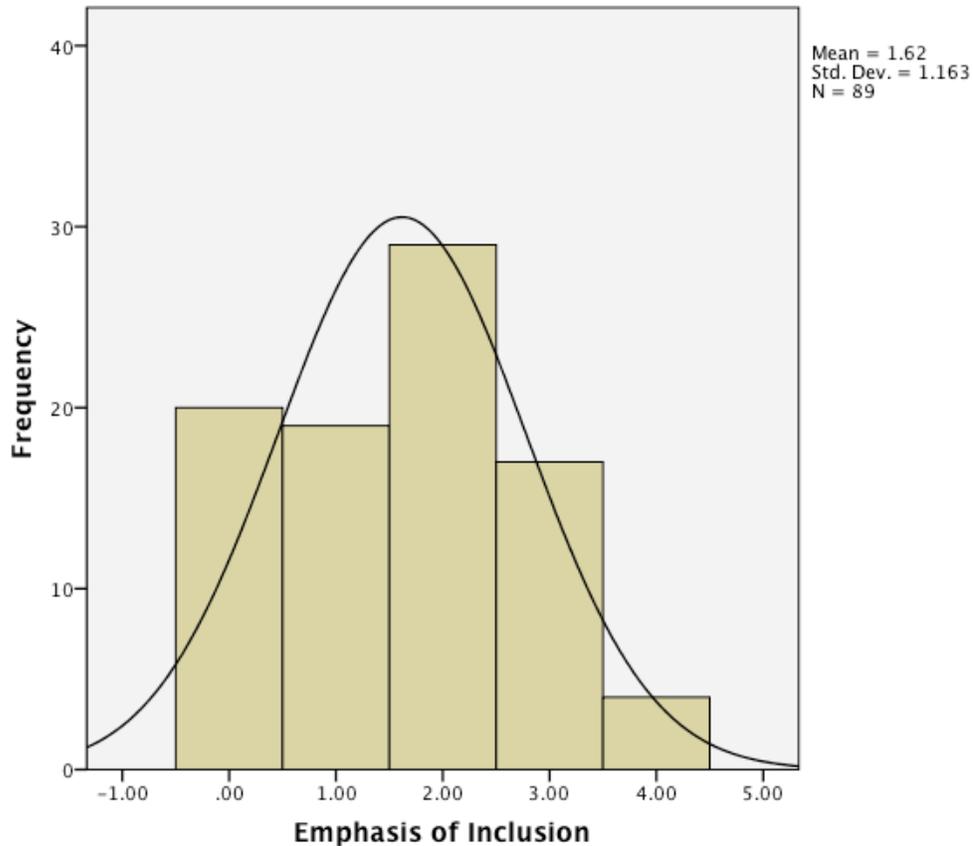


Figure 2. Histogram revealing that inclusion was not significantly emphasized during professional development activities

As revealed in Figure 2, teachers of this school system reported that inclusion was not perceived to have significant emphasis during professional development activities.

Additional data revealed more emphasis during professional development was given to research-based effective educational practices including curriculum standards, differentiated instruction, and formative assessment and data skills.

Research Question 3

Is there a significant difference in teacher self-efficacy for inclusion scores based on years taught in an inclusive classroom?

Ho3: There is no significant difference in teacher self-efficacy for inclusion scores based on years taught in an inclusive classroom.

A one way analysis of variance (ANOVA) was conducted to ascertain the significant difference in teacher self-efficacy for inclusion scores based on years taught in an inclusive classroom. The ANOVA was not significant, $F(3,75) = 0.62, p = 0.60$. As a result of the analysis, the null hypothesis was retained. These results indicate no significant difference in teacher self-efficacy for inclusion scores based on years taught in an inclusive classroom. There was an observable increase in teacher self-efficacy scores along side the increase of years teaching inclusion; however, the increase was not significant. For the measurement of more than 20 years teaching inclusion, a sharp decline in teacher self-efficacy for inclusion scores was reported. Figure 3 represents the findings for teacher self-efficacy for inclusion scores based on years taught in an inclusive classroom.

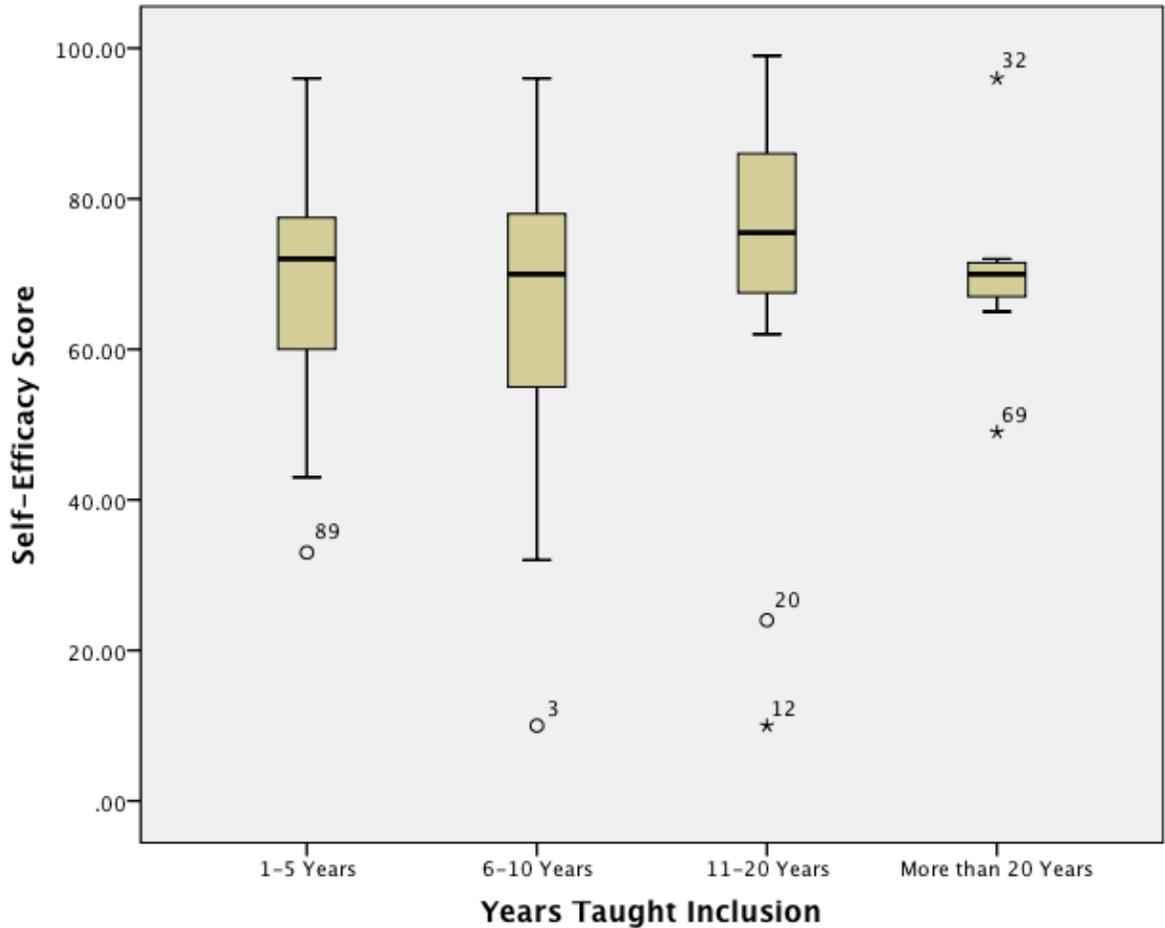


Figure 3. Box plot comparing teacher self-efficacy for inclusion scores based on years taught in an inclusive classroom

Research Question 4

Is there a significant difference in teacher self-efficacy for inclusion scores based on total years of teaching experience?

Ho4: There is no significant difference in teacher self-efficacy for inclusion scores based on total years of teaching experience.

An independent samples t test was conducted to evaluate whether the mean of teacher self-efficacy scores for 1-10 years and the mean for 11+ years of overall teaching experience was significantly different. The teacher self-efficacy score was the test

variable and the grouping variables were (1) 1-10 years and (2) 11+ years experience. The test was significant, $t(77) = 2.00$, $p = 0.05$. The null hypothesis was rejected revealing a significant difference in teacher self-efficacy for inclusion scores based on total years of teaching experience. Teachers with 1-10 years of experience ($M = 64.04$, $SD = 19.11$) tended to have lower self-efficacy for inclusion scores than those with 11+ years of experience ($M = 72.71$, $SD = 17.83$). These calculations indicated self-efficacy for inclusion of teachers with 11+ years of overall teaching experience is significantly higher than teachers with 1-10 years of overall teaching experience. Figure 4 represents the findings as reported by teachers.

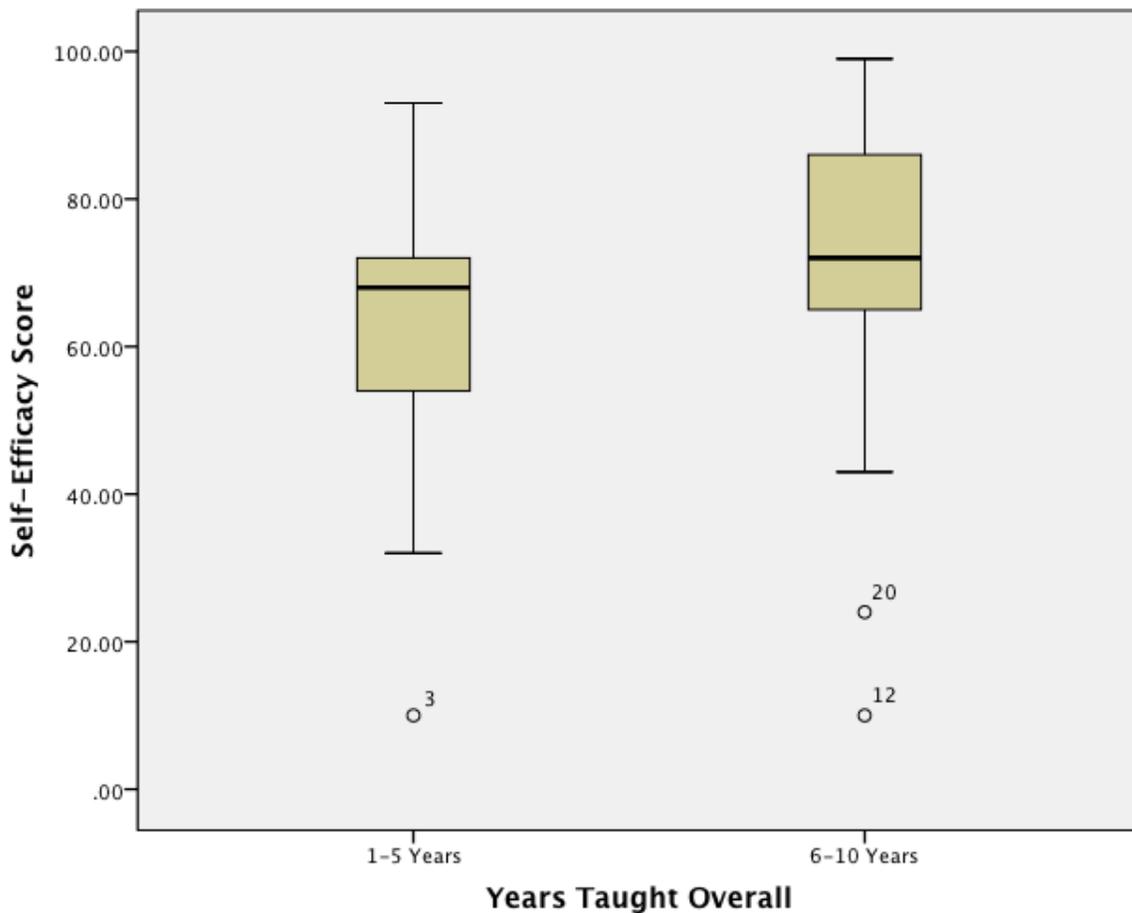


Figure 4. Box plot comparing teacher self-efficacy for inclusion scores based on total years teaching experience

Research Question 5

Is there a significant difference in teacher self-efficacy for inclusion scores based on highest degree completed?

Ho5: There is no significant difference in teacher self-efficacy for inclusion scores based on highest degree completed.

An independent samples t test was conducted to ascertain the significance of degrees completed in relationship to teacher self-efficacy for inclusion scores. The test was not significant, $t(77) = 0.688$, $p = 0.49$. The null hypothesis was retained indicating no significant difference in teacher self-efficacy for inclusion scores based on highest degree completed. Teachers reporting an undergraduate degree as their highest degree completed ($M = 72.32$, $SD = 15.27$) tended to score about the same as those reporting a graduate degree as their highest degree completed ($M = 68.93$, $SD = 19.61$). The 95% confidence interval for the difference in means was -17.31 to -0.04. Figure 5 shows the distributions for the two groups as reported by respondents.

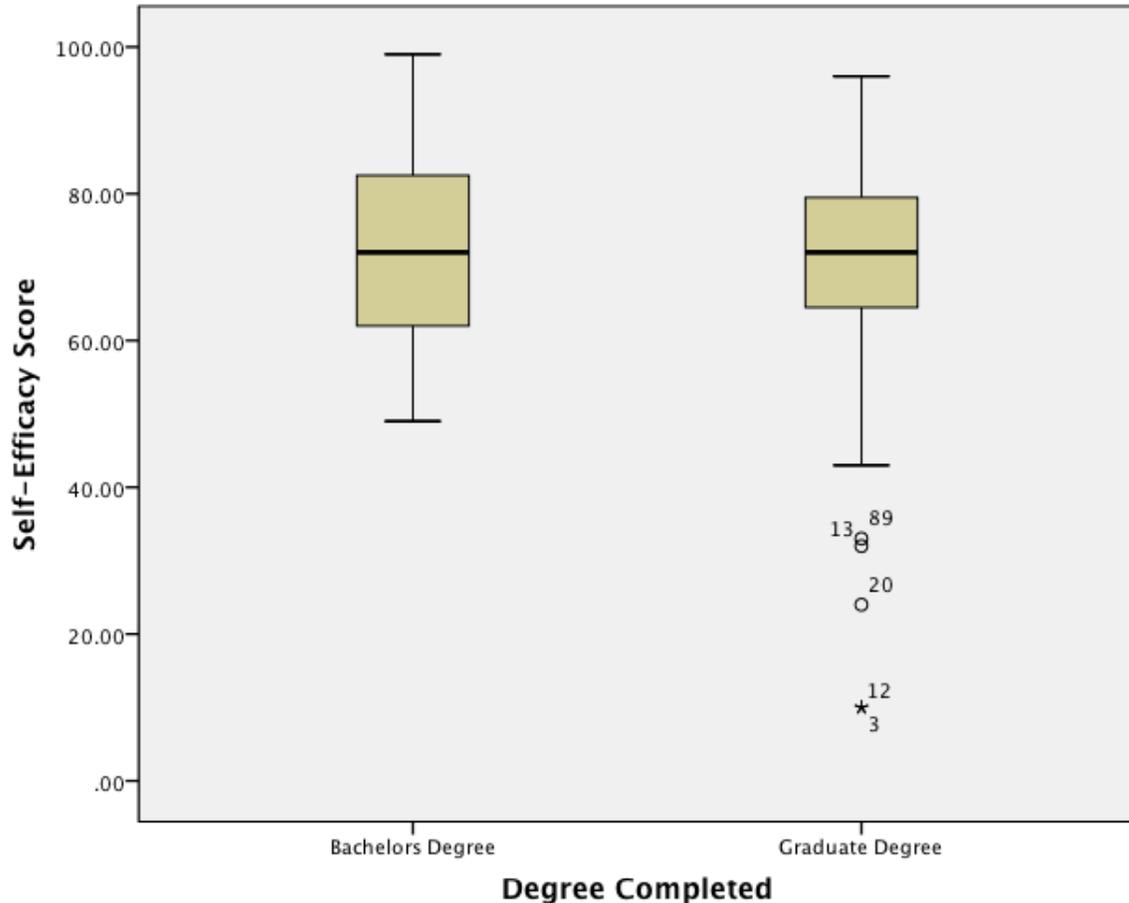


Figure 5. Box plot comparing teacher self-efficacy for inclusion scores based on highest degree completed

Research Question 6

Is there a significant difference in teacher self-efficacy for inclusion scores based on the number of required special education courses for initial certification?

Ho6: There is no significant difference in teacher self-efficacy for inclusion scores based on the number of required special education courses for initial certification.

An independent samples t test was conducted to ascertain the difference in teacher self-efficacy for inclusion score based on the number of required special education courses for initial certification. The test was not significant, $t(77) = 1.836$, $p = 0.07$. The

null hypothesis was retained indicating no significant difference between teacher self-efficacy scores of teachers who were required to take 1 or 2 special education courses for initial certification and teachers who were required to take more than 2 special education courses for initial certification. Teachers reporting 1 or 2 required special education courses for initial certification ($M = 65.27$, $SD = 22.58$) tended to report slightly, but not significantly, lower teacher self-efficacy for inclusion scores as those reporting more than 2 required special education courses for initial certification ($M = 72.96$, $SD = 14.61$). The 95% confidence interval for the difference in means was -16.02 to 0.65. Figure 6 shows the distributions for the two groups.

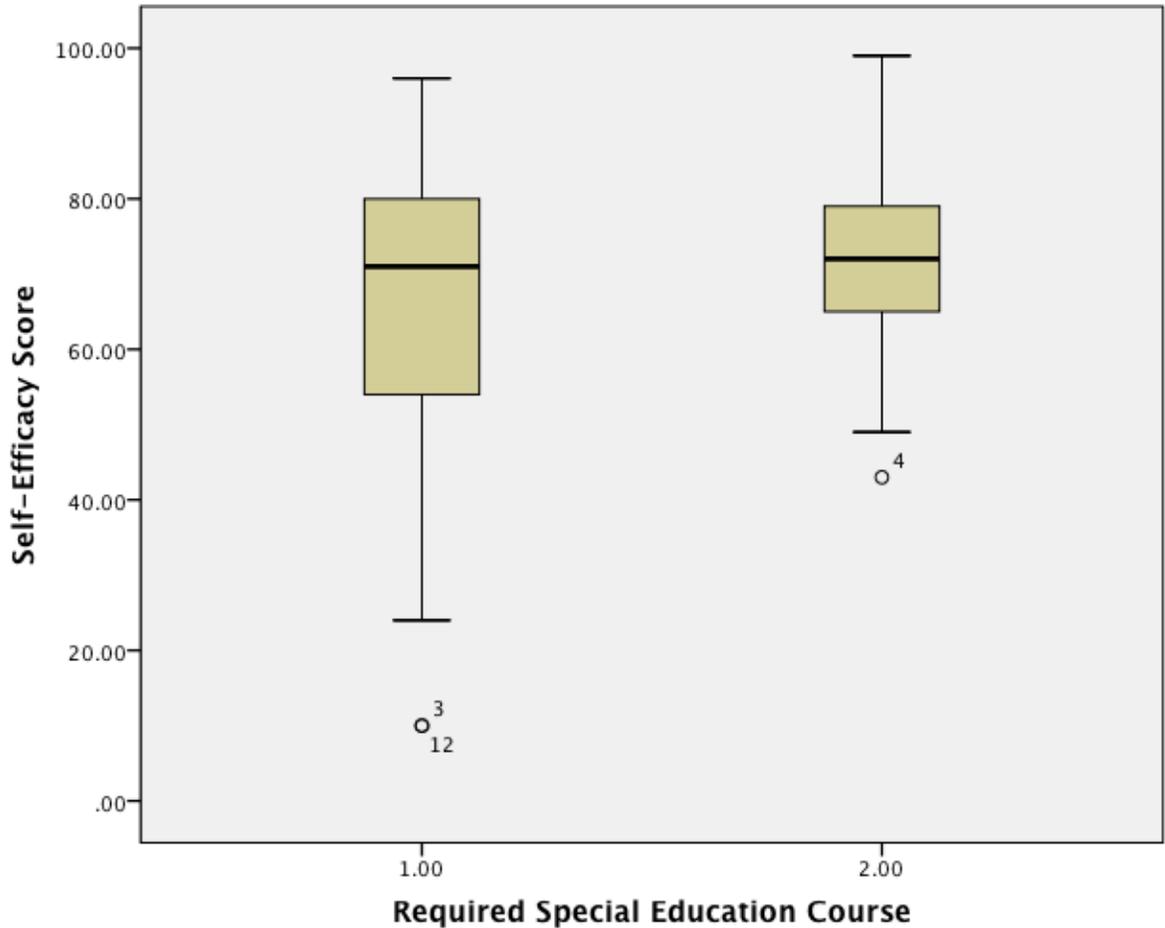


Figure 6. Box plot comparing teacher self-efficacy for inclusion scores based on required number of special education courses for initial certification

Additional Analysis of Data

The survey instrument, PDTEIS, contained additional questions not specifically addressed in the research questions of this study. When completed by respondents, the available results rendered data relevant to professional development and teacher self-efficacy for inclusion research. District level professional development activities that respondents participated in during the 2011-2012 school year are reported in Table 1. Respondents were not restricted to one type of activity and could select more than one type on the survey instrument. Results indicate that 78.5% of respondents participated in

school, grade level learning communities. An additional 70.9% of respondents chose district workshop or institute and 57.0% chose teacher committee or task force. Table 1 displays the participation level of respondents per activity type.

Table 1
District Level Professional Development

<u>Type of Professional Development</u>	<u>N</u>	<u>Percent</u>
Mentor Program	13	16.5%
Use of a Teacher Resource Center	9	11.4%
Teacher Committee or Task Force	45	57.0%
District, Grade Level Learning Community	38	48.1%
School, Grade Level Learning Community	62	78.5%
District Workshop or Institute	56	70.9%
District/college Partnership Workshop or Institute	7	8.9%

Out-of-district professional development activities are represented in Table 2 and reflect the respondents input for activities they participated in during the 2010-2011 school year. Respondents were not limited to one activity and had the opportunity to choose more than one activity on this portion of the survey. A majority of respondents chose professional conference attendance and a response of 60.8% was determined. Additional out of district professional development activities were represented with 30% or below of respondents indicating they had participated in these activities during the school year. The totals are shown in Table 2.

Table 2
Out-of-District Professional Development Activities

<u>Type of Professional Development</u>	<u>N</u>	<u>Percent</u>
Professional Conference	48	60.8%

Table 2 (continued)

<u>Type of Professional Development</u>	<u>N</u>	<u>Percent</u>
On-line learning community	24	30.4%
On-line modules	22	27.8%
College coursework	8	10.1%
Other	22	27.8%

Application of new skills within the classroom was also investigated through the PDTEIS as respondents were asked to respond through a ranking option the extent that given professional development activities helped them apply new skills in their classroom. Each activity had the options of None (score of 0), Little (score of 1), Some (score of 2), Above Average (score of 3), and Major extent (score of 4) resulting in a total rating of 4 points with 4 being the highest extent or most helpful.

The ratings and percentages are presented in Table 3 where activities are presented in order of providing the greatest extent of being helpful in application of new skills within the classroom to the least extent of being helpful. The first professional development activity that respondents chose for assisting them in applying new skills was meeting formally with other activity participants to discuss classroom implementation. This activity received an average rating of 2.18 out of 4.0 with 81.0% rating meeting formally with other activity participants as having some, above average, or major help in applying new skills in the classroom.

The second professional development activity that respondents chose as being helpful in applying new skills was meeting informally with other activity respondents to discuss classroom implementation. This activity received a 2.04 average rating with 72.8% of respondents rating meeting informally with other activity participants as having

some, above average, or major help in applying new skills in the classroom. The third professional development activity that respondents chose as beneficial for helping to apply new skills in the classroom was having their teaching observed by the activity leader with feedback provided. This activity received an average rating 1.99 out of 4.0 with 64.6% of respondents rating observation and feedback as being some, above average, or major help in applying new skills in the classroom. The data are shown below in Table 3 in order of most helpful to least helpful as reported by respondents.

Table 3
Professional Development Activities Help in Applying New Skills

<u>Professional Development Activity</u>	<u>N</u>	<u>Average Rating</u>
Meeting formally with other participants	79	2.18
Meeting informally with other participants	79	2.04
Teaching observed with feedback	79	1.99
Communication with activity leaders	77	1.73
Developed curricula/lesson plans for review	79	1.71
Coaching or Mentoring in classroom	79	1.62
Students' work reviewed by others	79	1.27

A component of the PDTEIS offered respondents the opportunity to reflect on their personal beliefs regarding their teaching in an inclusion class. Respondents were asked to select one rating per statement. The ratings and assigned values were Cannot Do (0), Somewhat Cannot Do (1), Somewhat Can Do (2), Can Do (3), and Certainly Can Do (4). The average rating of the individual ratings was calculated to render the respondent's teacher self-efficacy for inclusion score. Seventy-nine respondents completed this portion of the survey and average rating per statement and response counts are reflected in Table 4. The higher average rating would indicate the respondents' personal beliefs, teachers' self-efficacies, in their ability to perform the skill contained in

the item statement in an inclusion classroom. Statements are listed from highest average rating per statement to least average rating per statement.

Table 4
Teacher Self-Efficacy Responses for an Inclusion Classroom

<u>Statement</u>	<u>N</u>	<u>Average Rating</u>
I am able to create a classroom environment in which all students are accepted	77	3.26
I am able to incorporate goals from IEPs of students with Disabilities into my teaching	70	3.18
I can adjust lessons to the proper level for my students with learning disabilities	78	3.14
I can ensure that students with disabilities have successful academic experiences and obtain positive feedback in class	77	3.12
I can craft appropriate learning questions for my students with disabilities when needed – for instance, by breaking down into smaller components	79	3.10
I am able to create assessments or modify assessments to meet the specifications of my students' IEPs	77	3.08
I can pair students for cooperative learning activities in a way that benefits both students with and		
I can build activities on the strength of students with learning disabilities	77	3.05
I can establish routines or practices that help students recover from personal or group issues	77	3.03
I can recognize the way in which a child's disability impacts his/her emotional sensitivity to challenges in the classroom	77	3.01
I can implement alternative instructional strategies for both students with and without disabilities	78	3.00
I can establish classroom management systems for students with disabilities that support and maintain desired behavior	77	2.97
I am able to prepare and provide for students with disabilities alternative homework assignments they can do independently at home with success	77	2.95
I can get students with disabilities to understand when confused by providing alternative explanations or examples	79	2.94
I can conduct careful and ongoing monitoring of whether or not students with learning disabilities comprehend what I have taught	77	2.92
I know ho to grade students who have been given modified grading and promotional criteria	77	2.91
I can support the social integration of children with disabilities during unstructured activities	77	2.88
I can simultaneously implement alternative behavior management strategies for different students in an inclusion class	77	2.86
I can create activities where students with learning disabilities can lead	77	2.84

Table 4 (continued)

<u>Statement</u>	<u>N</u>	<u>Average Rating</u>
I can create lessons/activities that students with disabilities can participate in without too much individual support	78	2.82
I can redirect students with disabilities throughout Activities without detracting from my other responsibilities	77	2.82

Summary

Chapter 4 is an introduction to the research study including the purpose of the research study and a brief overview of the research study. Detailed descriptions of the statistical analyses performed to ascertain the relationship of professional development to teacher self-efficacy for inclusion scores were provided. Information regarding participants' demographic information and disaggregation of the data was presented. Chapter 5 is a discussion of the conclusions drawn from the findings arranged by research question, implications for practice, and implications and recommendations for future research.

CHAPTER 5

CONCLUSIONS

Introduction

The purpose of this study was to ascertain the relationships that exist between reform based professional development and teacher self-efficacy for inclusion of elementary teachers in one school district in East Tennessee. The total population of elementary teachers was 385 teachers who were presently employed in one of the 14 elementary schools in the district. The data were collected through the use of an online survey that was made available through the teachers' school email. Six research questions led to the formation of six null hypotheses that were tested using data analyzed through *IBM SPSS*.

Summary of Study

Public education in the United States has faced challenges of reform for several decades. Through legislative reports and acts including *A Nation at Risk*, Goals 2000: Educate America Act, and No Child Left Behind, public education has undergone great reform initiatives. Educational reform efforts have addressed the role of the educator and the professional training or development that is provided for educator growth in order meet the new demands placed on teachers while also addressing accountability for all student learning through testing requirements and required graduation credits.

The educational needs of students with disabilities have also been on the forefront of educational reform initiatives. Congress enacted Public Law 94-142, known at the

Education of All Handicapped Students Act, in 1975. This legislative act ensured that students with disabilities could and would receive a free and appropriate public education. As the federal government reauthorized this law in 2004 with the Individual with Disabilities Education Improvement Act, students with disabilities were ensured increased access to the general education classroom and curriculum (Turnbull et al., 2010).

Public education classroom teachers are the cornerstone of educational reform, and the demands for globally prepared graduates necessitates increased expectations, rigorous standards for instruction, and more effectively prepared teachers. Schlauch (2003) discussed the significance of teacher education and preparation due to the future impact that teachers and their instruction has on students. There were inadequacies found in the preparation of beginning teachers in the area of inclusive teaching or teaching students with and without disabilities in the same classroom.

While general and special education teachers have traditionally been trained on two different paths of required course content, many in service teachers reported that their preservice training and education included little information on students with disabilities and effective inclusive practices (Jenkins & Yoshimura, 2010). General education teachers do not always believe they are prepared to teach students with disabilities within the general education classroom. This belief of inadequacy negatively affects the general education teacher's self-efficacy for inclusion.

Tschannen-Moran et al. (1998) linked higher levels of efficacy beliefs to greater efforts and performances by teachers. Bandura (1997) categorized four sources of efficacy beliefs: mastery experiences, vicarious experiences, social persuasion, and

physiological and emotional states. The most significant source of efficacy information occurs in mastery experience or personal attainments (Usher, 2008). As a person is learning about and developing a skill, gradual improvement over time is noted and his or her self-efficacy is increased.

These inadequacies in teacher preparation, teacher self-efficacy for inclusion, and educational reform efforts call for effective teacher professional development that is focused on increasing teachers' abilities to teach and support all students in the classroom, differentiate instruction, and participate in professional collaboration (Boe et al., 2007, Causton-Thoeharis & Theoharis, 2008; Ross, 2002; Schlauch, 2003). Traditional professional development workshops have a minimal lasting impact on participants and students (McLeskey & Waldron, 2002b; Reborra, 2008). "The most useful professional development emphasizes active teaching, assessment, observation, and reflection rather than abstract discussions" (Darling-Hammond, 2006, p.46). Additional characteristics of effective professional development include collective participation, content focused on curriculum needs and based best practices found in research, connected to system and school wide goals, extended over time to allow for active learning and practice, and include follow-up activities and additional development (Lyndon & King, 2009; Snow-Renner & Lauer, 2005).

Federal legislation has continued to focus attention on public education reform and the professional development that educators receive. A major factor for effective teaching is the ongoing development that teachers receive. Local education agencies are responsible for continuing to train in service teachers according to legislative guidelines and research based best practices. While local school systems attempt to provide this

maintenance of instructional services, numerous teachers are still indicating professional needs in the area of inclusive teaching and related services for students with disabilities.

Available research indicates that teachers need information and training in order to become more confident and effectively teach in inclusive classroom (Burgess, 1997; Jenkins & Yoshimura, 2010; Rehora, 2008; Ross, 2002; Schleicher, 2011). Motivation to learn new skills, apply new skills, and pursue through mastery are linked to different levels of self-efficacy (Bandura, 1997; Schaefer, 2010). Higher levels of efficacy beliefs have been linked to greater effort and performances by in service teachers (Tschannen-Moran et al., 1998). Little empirical evidence exists to guide school administrators in providing research-based, effective professional development. An even greater deficit of empirical research is available on the effects of effective professional development on teachers' self-efficacies for inclusion. Therefore, the purpose of this study was to ascertain the relationships that exist between reform-based professional development and teacher's self-efficacy for inclusion.

The Professional Development and Teacher Efficacy for Inclusion Survey (PDTEIS) was developed from two preexisting instruments. The Teacher Activity Survey and Teacher Efficacy for Inclusion Scale were modified and used with permission from their authors. The PDTEIS was made available to all elementary teachers in one East Tennessee school district through their school email with the permission of the Director of Schools.

Those elementary teachers volunteering for participation in this research study responded to the Internet survey. Data were collected through Survey Monkey, a web-

based survey service. Data were entered by the researcher into *Microsoft Excel* and analyzed using *IBM SPSS*.

Summary of Results

This analysis focused on the six research questions used to guide this study. Using a total population of 385 elementary teachers in one school district in East Tennessee, an online survey was made available through the teachers' school email. Seventy-nine respondents completed the survey.

Research Question 1

Is there a significant correlation between teacher self-efficacy for inclusion scores and the amount of professional development completed?

Respondents marked the corresponding choice for professional development activities they had participated in during the current school year to provide a total number of professional development activities per respondent. A Pearson correlation was computed. There was no significant correlation between teacher self-efficacy for inclusion scores and the amount of professional development completed during the current school year.

Research Question 2

To what extent do teachers perceive inclusion was emphasized during professional development activities?

Respondents' rated their perception of the extent that inclusion was emphasized during professional development activities. A single sample t test was computed.

Teachers reported a perception that inclusion was not emphasized during professional development activities.

Research Question 3

Is there a significant difference in teacher self-efficacy for inclusion scores based on years taught in an inclusive classroom?

Item six on the survey instrument asked respondents to choose the number of years representing their experience teaching in an inclusive classroom. An ANOVA was used to ascertain the significant difference in teacher self-efficacy for inclusion scores based on years taught in an inclusive classroom. No significant difference was found in teacher self-efficacy scores based on years taught in an inclusive classroom.

Research Question 4

Is there a significant difference in teacher self-efficacy for inclusion scores based on total years of teaching experience?

Teacher self-efficacy scores and responses for total years of teaching experience were used to compute an independent samples t test. The results were collapsed into one of two categories for total years teaching experience including, (1) 1-10 years and (2) 11+years. An independent samples t test was computed. A significant difference in teacher efficacy for inclusion scores centered on total years teaching experience. The category of teachers with 11+ years of total teaching experience held a mean teacher self-efficacy for inclusion score significantly higher than teachers with 1-10 years of total teaching experience.

Research Question 5

Is there a significant difference in teacher self-efficacy for inclusion scores based on highest degree completed?

An independent samples t test was computed with grouping variables established as (1) undergraduate degree completed and (2) graduate degree completed. There was no significant difference found in teacher self-efficacy for inclusion scores between the two types of degrees completed as reported by teachers.

Research Question 6

Is there a significant difference in teacher efficacy for inclusion scores based on the number of required special education courses for initial certification?

An independent samples t test was computed. There was not a significant difference between teacher efficacy scores of teachers who were required to take one or two special education courses for initial certification and teacher who were required to take more than two special education courses for initial certification. Mean scores reflect a higher teacher efficacy for inclusion score of teachers who were required to take more than two special education courses as compared to teachers who were required to take one or two special education courses. Scores were not significantly higher.

Conclusions

The purpose of this study was to ascertain the relationships that exist between reform based professional development and teacher self-efficacy for inclusion. A web-based survey was made available to all elementary school teachers in one East Tennessee school district. The results of the analysis and review of available literature pertaining to

professional development and teacher self-efficacy for inclusion have lead to the following conclusions.

1. The amount of professional development participation did not have a significant correlation to teacher self-efficacy for inclusion scores. The content of the professional development and the type of activity may have a more positive impact on teachers' self-efficacies for inclusion.
2. The topic of inclusion was not given sufficient emphasis during professional development activities. This school district provided professional development opportunities that were related to district and building level goals. Inclusion related development was not one of those goals.
3. Teacher self-efficacy for inclusion scores were not significantly higher based on years taught in an inclusive classroom. An incline was observed in teacher self-efficacy for inclusion scores the more years teachers reported teaching in an inclusion class with a sharp decline occurring at the more than 20 year interval. Effective professional development concerning inclusion should be required throughout the longevity of a teacher's career.
4. Teacher self-efficacy for inclusion scores were significantly higher for teachers reporting 11+ years of total teaching experience than teachers reporting 1-10 years of total teaching experience. Teachers are more confident in their instructional skills within an inclusive classroom after 10 years of experience and participation in professional development opportunities.
5. No significant difference was found in teacher self-efficacy for inclusion scores based on highest degree completed. Effective instructional practices with regards

to inclusion should be a component of professional development and required course content with advanced degrees and certifications.

6. Teachers who reported a requirement of more than two Special Education courses for initial certification held higher teacher self-efficacy for inclusion scores as compared to those who reported a requirement of one or two Special Education courses for initial certification. The number of required Special Education courses for certification has an impact on teacher self-efficacy for inclusion.

Implications for Practice

Further research is needed to investigate the effectiveness of professional development on teacher self-efficacy and teacher self-efficacy for inclusion. Studies have shown that teachers indicate a need for more training in regards to teaching students with special needs even after pre teaching coursework, teaching licensure, and participation in professional development. The results of this study and the need for further research have compelled the implications for practice.

1. The amount of professional development does not have a significant impact on teacher self-efficacy for inclusion scores. Effective, research based professional development should be the focus when planning activities for practicing teachers.
2. Inclusion should continue to be a component of professional development content throughout the longevity of a teacher's career.
3. Teacher self-efficacy for inclusion score means continue to increase with years of experience teaching in an inclusive classroom. A sharp decline in teacher self-efficacy for inclusion score means occurs at the more than 20 year interval.

- Effective inclusion instruction should remain a skill addressed in professional development activities throughout a teacher's entire teaching career.
4. A significantly higher teacher self-efficacy for inclusion scores at the 11+ total years of teaching experience interval was found. Scores were higher at this time in comparison to scores of teachers reporting 1-10 total years of teaching experience. Mastery of a skill and higher self-efficacy develops over time. As professional development is planned, short and long term planning should consider inclusive instructional skill development over time.
 5. No significant difference in teacher self-efficacy for inclusion scores based on highest degree completed was reported. A higher teacher self-efficacy for inclusion scores was reflected for teachers who were required to take more than two Special Education courses for initial certification. Advanced degrees and certifications should continue to address inclusive education through course requirements and practical experiences.

Implications for Future Research

This study was limited to all elementary teachers of a single school system. Therefore, the generalizability of this study is limited to systems sharing similar characteristics to the participatory system or elementary focused professional development. The following list of implications for future research was compiled to generate further thought and possible study.

1. What is the relationship between effective professional development characteristics and teacher self-efficacy for inclusion or teacher efficacy

(Characteristics to include; collective participation, content is focused on curriculum needs and research based practices, connected to system and school wide goals, extended over a period of time to allow for active learning and practice, and follow-up activities)?

2. What is the relationship between teacher self-efficacy for inclusion and effective professional development activities (mentor program, teacher resource center, teacher committee or task force, professional learning community, on-line learning community, workshop or institute, and college coursework or institute)?
3. To what extent does the amount of required special education courses have an effect on teacher self-efficacy for inclusion (initial certification and BS degree versus additional certifications and graduate degree)?
4. To what extent do professional development activities help teachers apply effective inclusive practices in the classroom (coaching or mentoring, meeting informally or formally with other activity participants to discuss implementation, teaching observed by activity leader, communication with activity leader, students' work reviewed by participants or activity leader, and development of curriculum or lesson plans reviewed by participants or activity leader)?

Summary

Effective teacher professional development is pivotal to increasing the effectiveness of teachers in the classroom. Federal legislation has continued to focus

reform initiatives on the professional development of teachers; however, little empirical evidence exists to guide administrators in providing effective professional development. There is an even greater deficit of research available on the effects of professional development on teachers' self-efficacy for inclusion. Therefore the purpose of this study was to ascertain the relationships that exist between reform-based professional development and teachers' self-efficacies for inclusion.

This quantitative study was organized into five chapters. Chapter 1 included an introduction, statement of the problem, research questions, definitions of terms used in the study, significance of the study, limitations of the study, and delimitations of the study. Chapter 2 was a comprehensive review of literature that included sections discussing the history of professional development, the history of educating students with disabilities, teacher training and needs, teacher perceived self-efficacy, the significance of professional development, effective professional development, barriers to professional development, and professional learning communities.

Chapter 3 described of the quantitative research design and data collection procedures chosen for this study. A quantitative nonexperimental research design was chosen as a survey was administered to collect data pertaining to professional development participation and teacher efficacy for inclusion. The Professional Development and Teacher Efficacy for Inclusion Survey incorporated two preexisting surveys: Teacher Activity Survey and Teacher Efficacy for Inclusion Scale. Items from these two surveys were modified and developed to address areas of interest for this study. Anonymity was maintained by requesting voluntary participation through a school wide email directed to all elementary schools teachers which included a direct link to the web

based survey. Data for this research study were analyzed through quantitative methods utilizing *Microsoft Excel* and *IBM SPSS* to find the statistical calculations.

Chapter 4 reported the findings for this research study per research question. Six research questions were used to frame the study. The six hypotheses presented in Chapter 3 were used to test the data. Detailed descriptions of the statistical analyses performed to ascertain the relationships of professional development to teacher self efficacy for inclusion were provided. Participants' demographic information and a disaggregation of the data was presented in Chapter 4. Chapter 5 discussed the conclusions drawn from the findings arranged by research question, implications for practice, and implications and recommendations for future research.

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APPENDIX

Survey Instrument

Professional Development and Teacher Perceived Efficacy for Inclusion Survey

Instructions: Classroom teachers are asked to respond to each of the following items according to your experiences for the 2011-2012 school year.

Demographic Information:

1. Gender Male Female

2. What is your ethnicity? Please check one.
 American Indian
 Asian or Pacific Islander
 African American, not of Hispanic origin
 Caucasian, not of Hispanic origin
 Hispanic

3. How many years of teaching experience do you have? Check only one.
 1-5 6 -10 11-20 More than 20

4. How many years have you been teaching in your current school system? Check only one.
 1-5 6 -10 11-20 More than 20

5. How many years have you been teaching in your present school? Check only one.
 1-5 6 -10 11-20 More than 20

6. How many years have you taught in an inclusive classroom? Check only one.
 None 1-5 6 -10 11-20 More than 20

7. What certifications do you presently hold? Check all that apply.
 Pre-school
 Elementary
 Middle School
 Secondary
 Principal
 Supervisor
 Special Education
 Specific Subject

8. Please check the highest degree you have completed.
 Bachelors
 Masters
 Specialist
 Doctorate

9. How many Special Education courses were required for your initial certification?
 ___ 0 ___ 1 ___ 2 ___ 3 ___ 4 ___ More than 4

Please continue to the next page.

Professional Development Information:

10. Please mark the district level professional development activities that you participated in this school year. Select all that apply.

- Mentor program
- Use of a teacher resource center
- Teacher committee or task force
- District, grade level learning community
- School, grade level learning community
- District workshop or institute
- District/College partnership workshop or institute
- Other

11. Please mark the out of district professional development activities that you participated in this school year. Select all that apply.

- Professional conference
- On-line learning community
- On-line modules
- College coursework
- Other

12. To what extent have the following professional development activities helped you apply new skills in your classroom? Choose one response per item.

	<u>No</u> <u>Help</u>					<u>Major</u> <u>Help</u>
a) Received coaching or mentoring in the classroom	0	1	2	3	4	5
b) Met formally with other activity participants to discuss classroom implementation	0	1	2	3	4	5
c) My teaching was observed by the activity leader(s) and feedback was provided	0	1	2	3	4	5
d) My teaching was observed by other participants and feedback was provided	0	1	2	3	4	5
e) Communicated with the leader(s) of the activity concerning classroom implementation	0	1	2	3	4	5

f) My students' work was reviewed by participants or the activity leader 0 1 2 3 4 5

Please continue to the next page.

12. (continued) To what extent have the following professional development activities helped you apply new skills in your classroom. Choose one response per item.

	<u>No</u> <u>Help</u>	<u>Major</u> <u>Help</u>
g) Met informally with other participants to discuss classroom implementation	0 1 2 3 4 5	
h) Developed curricula or lesson plans, which other participants or the activity leader reviewed	0 1 2 3 4 5	

13. To what extent were the following items given sufficient emphasis during your professional development activities? Choose one response per item.

	No Emphasis	Major Emphasis
a) Curriculum standards/frameworks	0 1 2 3 4 5	
b) Differentiated instruction	0 1 2 3 4 5	
c) Formative assessment	0 1 2 3 4 5	
d) Use of technology in classroom	0 1 2 3 4 5	
e) Increasing knowledge of subject matter	0 1 2 3 4 5	
f) Leadership skills	0 1 2 3 4 5	
g) Interpersonal skills	0 1 2 3 4 5	
h) Data skills	0 1 2 3 4 5	
i) Legislation	0 1 2 3 4 5	
j) Inclusion	0 1 2 3 4 5	

14. To what extent was the professional development activity:

	<u>No</u> <u>Extent</u>	<u>Great</u> <u>Extent</u>
a) Consistent with your own goals for your professional development?	0 1 2 3 4 5	

b) Consistent with your school's plan for change? 0 1 2 3 4 5

c) Linked to what you have learned in other activities? 0 1 2 3 4 5

Please continue to the next page.

14. (continued) To what extent was the professional development activity:

d) Supportive of state or district standards/curriculum frameworks? 0 1 2 3 4 5

e) Supportive of state or district assessment? 0 1 2 3 4 5

15. How was the activity evaluated? Check all that apply.

Participants completed a survey

Participants were interviewed for feedback

The session was observed by an evaluator

My classroom was observed

Student outcomes in my classroom were evaluated

Some other form of evaluation took place

No discernible evaluation took place

Teacher Efficacy for Inclusion:

16. The following statements pertain to your personal beliefs regarding teaching in an inclusion class. Please select one rating to reflect the extent of your abilities.

	Cannot <u>Do</u>					Certainly <u>Can Do</u>
a) I am able to incorporate goals from IEPs of special education students into my teaching.	0	1	2	3	4	5

b) I can adjust lessons to the proper level for my students with learning disabilities.	0	1	2	3	4	5
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c) I can craft appropriate learning questions for my students with disabilities when needed—for instance, by breaking them down into smaller components.	0	1	2	3	4	5
--	---	---	---	---	---	---

d) I can implement alternative instructional strategies for both students with and without disabilities.	0	1	2	3	4	5
--	---	---	---	---	---	---

e) I can get students with disabilities to understand when

confused by providing alternative explanations or examples. 0 1 2 3 4 5

Please continue to the next page.

16. (continued) The following statements pertain to your personal beliefs regarding teaching in an inclusion class. Please select one rating to reflect the extent of your abilities.

	Cannot <u>Do</u>					Certainly <u>Can Do</u>
f) I can create lessons/activities that students with disabilities can participate in without too much individual support.	0	1	2	3	4	5
g) I can plan/create tasks that students with learning disabilities can complete within fixed or allocated time frames.	0	1	2	3	4	5
h) I am able to prepare and provide for students with disabilities alternative homework assignments they can do independently at home with success.	0	1	2	3	4	5
i) I can pair students for cooperative learning activities in a way that benefits both students with and without disabilities.	0	1	2	3	4	5
j) I can recognize the way in which a child's disability impacts his/her emotional sensitivity to challenges in the classroom.	0	1	2	3	4	5
k) I can ensure access to resources and reference materials (books, websites, newspapers) that are at an appropriate difficulty level for students with educational disabilities.	0	1	2	3	4	5
l) I can conduct careful and ongoing monitoring of whether or not students with learning disabilities comprehend what I have taught.	0	1	2	3	4	5
m) I am able to create assessments or modify assessments to meet the specifications of my students' IEPs.	0	1	2	3	4	5
n) I know how to grade students who have been given modified grading and promotional criteria.	0	1	2	3	4	5
o) I can educate children about their disabilities and the strategies they can use to cope with their disabilities.	0	1	2	3	4	5
p) I can support the social integration of children with disabilities during unstructured activities (e.g., during recess).	0	1	2	3	4	5

q) I can establish classroom management systems for students with disabilities that support and maintain desired behavior. 0 1 2 3 4 5

Please continue to the next page.

16. (continued) The following statements pertain to your personal beliefs regarding teaching in an inclusion class. Please select one rating to reflect the extent of your abilities.

- | | Cannot
<u>Do</u> | | | | | Certainly
<u>Can Do</u> |
|---|---------------------|---|---|---|---|----------------------------|
| r) I can simultaneously implement alternative behavior management strategies for different students in an inclusion class. | 0 | 1 | 2 | 3 | 4 | 5 |
| s) I can redirect students with disabilities throughout activities without detracting from my other simultaneous teaching responsibilities. | 0 | 1 | 2 | 3 | 4 | 5 |
| t) I can establish routines or practices that help students to recover from personal or group issues (e.g., having an area where a student can go to calm down or reflect). | 0 | 1 | 2 | 3 | 4 | 5 |
| u) I can ensure that students with disabilities have successful academic experiences and obtain positive feedback in class. | 0 | 1 | 2 | 3 | 4 | 5 |
| v) I can build activities on the strengths of students with learning disabilities. | 0 | 1 | 2 | 3 | 4 | 5 |
| w) I can create activities where students with learning disabilities can lead. | 0 | 1 | 2 | 3 | 4 | 5 |
| x) I am able to create a classroom environment in which all students are accepted. | 0 | 1 | 2 | 3 | 4 | 5 |

You have completed this survey. I appreciate your time, professionalism, and continued commitment to public education.

–Susan Lee

VITA

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