ABSTRACT

SPECIAL EDUCATION TEACHER PREPARATION PROGRAMS AND THEIR INFLUENCE ON SELF-EFFICACY

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This quantitative dissertation examined the differences in special education teacher preparation programs and their association with novice teachers' self-efficacy in the areas of classroom management, student engagement, and instructional strategies while teaching students with moderate to severe disabilities. Tschannen-Moran and Woolfolk Hoy's Teacher Self-Efficacy Scale was used to measure self-efficacy while demographic variables such as initial teacher certification style and student teaching experiences were also considered. One hundred and six special education teachers voluntarily participated in this study.

This study investigated whether different state models for special education teacher certification influenced the self-efficacy of novice teachers. Three models exist in the United States; however, the analyses of their differences did not result in strong associations for influencing self-efficacy. This suggests state leaders can use different teacher certification models to prepare special education teachers as the model itself does not influence self-efficacy. Results of this study provide opportunities for future research related to self-efficacy and special education teacher preparation.

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SPECIAL EDUCATION TEACHER PREPARATION PROGRAMS AND THEIR INFLUENCE ON SELF-EFFICACY

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Earning a doctoral degree is an exercise of discipline, perseverance, and meaningful learning. It is a journey that requires much time, commitment, and grit as well as a high level of understanding and support from one's spouse, children, family, friends, and dissertation committee.

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DEDICATION

To the boys who make me love and laugh more than anything: Jon, Ryan, and Jack

TABLE OF CONTENTS

Chapter Page

Chapter Page

LIST OF TABLES

LIST OF APPENDICES

CHAPTER 1

INTRODUCTION

History of Special Education Teacher Preparation Programs

Special education teachers must attain appropriate certification for their roles in schools, and over the last few decades, teacher certification for special educators has changed. Historically, children with disabilities did not attend public schools, so for many years, there were no licensure requirements or programs to prepare teachers on how to teach children with disabilities. In fact, many states had laws excluding these children from school. However, the Civil Rights Movement along with other pivotal legislation, court cases, and research helped spur changes in the preparation of special education teachers and the service delivery model for students with disabilities. The history of special education teacher preparation will be discussed throughout this chapter.

Over the last 150 years, both special education services for students and preparation for teachers have progressed. The first special education teachers were prepared in residential settings, as this was the only place students with disabilities were educated (Brownell, Sindelar, Kiely, & Danielson, 2010). Fast-forward to present day, students with disabilities between the ages of 3 and 21 receive special education services through their local school districts. To receive special education services, a student must be found to have a developmental disability or be eligible in one of 13 categories: autism, specific learning disability, emotional disability,

intellectual disability, speech or language impairment, deaf-blindness, deafness, visual impairment, hearing impairment, orthopedic impairment, multiple disabilities, other health impairment, or traumatic brain injury (IDEA, 2004). The student may be fully or partially included into general education settings or have his or her needs met in a special education classroom or special school, as determined by the team writing the Individualized Education Plan (IDEA, 2004). Current federal law provides students with disabilities access to a "free and appropriate education" (FAPE) in the "least restrictive environment" (LRE), an Individualized Education Plan (IEP), access to related services such as speech therapy and occupational therapy, and additional rights and considerations in regard to discipline (IDEA, 2004). As the rights of students with disabilities progressed and more students attended local public schools, requirements for special education teacher preparation increased, and three distinct eras emerged over time: categorical, non-categorical, and integrated (Brownell et al., 2010). These eras will be reviewed using an organizational framework of major historical contexts in special education originally published by Brownell et al. (2010).

Categorical Era

The first special education teacher preparation programs in the United States were established in the early 1950s (Mackie & Dunn, 1954). These programs were taught at special training schools and clinical settings designed to work with people with disabilities. They primarily served children with speech and hearing impairments, mental retardation (now referred to as intellectual disability), and students who were deaf (Brownell et al., 2010).

During the categorical era, two pivotal court cases provided access to education for children with disabilities: *Brown vs. Board of Education* (1954) and *Pennsylvania Association*

for Retarded Children v. Commonwealth of Pennsylvania (1972). In the landmark case *Brown vs. Board of Education (1954),* the U.S. Supreme Court ruled the principle of "separate but equal" was unconstitutional. This led parents of children with disabilities to seek equal access to education (Brownell et al., 2010). *Pennsylvania Association for Retarded Children v. Commonwealth of Pennsylvania* (1972), a second influential case for special education, established the outcome that children could not be denied an education because they were not toilet trained or were determined to be uneducable (Brownell et al., 2010).

In addition to court rulings, legislation provided students with disabilities greater access to public education. The Education of Mentally Retarded Children Act passed in 1958 which supported the practice of special education teacher preparation in colleges and universities (Brownell et al., 2010). The passing of additional legislation widened the scope of teacher preparation for other disabilities, included federal funding for teacher preparation, and offered more children with disabilities access to education in public schools. By the 1970s, members of the Bureau of Education for the Handicapped (BEH) supported many universities across the country, and teachers received certification to teach children with disabilities in specific categories (Brownell et al., 2010).

In 1975, Congress passed the Education for All Handicapped Children Act (EAHCA), which first authorized students with disabilities the right to FAPE in the LRE (EAHCA, 1975). Reauthorization of this act occurred in 1990 as the Individuals with Disabilities Education Act (IDEA) and again in 2004 as the Individuals with Disabilities Education Improvement Act (IDEIA). Both reauthorizations improved support for children with disabilities in public schools.

Originally, teachers in Illinois and several other states who desired to teach students with disabilities were certified for a specific disability category. Teachers could earn endorsements

for teaching students labeled as Educable Mentally Handicapped (EMH), Trainable Mentally Handicapped (TMH), Socially and Emotionally Disabled (SED), Learning Disabled (LD), Speech Impaired, Deaf-blind, Visually Impaired, and/or Physically Disabled (PD; Illinois Administrative Code 21-28). This individualized endorsement offered specific training for working with students with complex needs; however, it was limiting because many students have multiple disabilities or primary and secondary eligibilities that do not fall under the same certification. When this occurred, it was possible a teacher may not have held the correct certification for educating a particular student or the student may have been placed in a more restrictive setting to be taught by a teacher holding the correct certification(s). The categorical approach to special education teacher preparation was implemented based on the premise teachers would effectively teach children with disabilities if they had extensive knowledge of the disability characteristics and learning-specific interventions and assessments by enrolling in disability-specific coursework (Brownell et al., 2010).

Non-Categorical Era

In the mid-1970s, a new era began as researchers struggled to validate the efficacy of categorical and disability-specific teaching and preparation (Brownell et al., 2010). Emerging research regarding competency-based teacher education (CBTE) models started to influence general education preparation programs as well as special education preparation programs (Brownell et al., 2010).

CBTE soon became standard practice in many universities (Brownell et al., 2010). The process of preparation included identifying competencies needed for teaching students with disabilities, providing opportunities for the pre-service teacher to practice these competencies,

and providing pre-service teachers with feedback and reinforcement. Pre-service teachers were mainly taught the skills in isolation and then applied the skills once they were in the field (Brownell et al., 2010).

Ultimately, professors preparing pre-service teachers viewed CBTE as too mechanical (Brownell et al., 2010). This dissatisfaction led to the teaching of broad instructional and classroom management skills (Brownell et al., 2010) because of the overlap that may exist in teaching students with different disabilities (Hallahan & Kauffman, 1977). Concurrently, non-categorical or cross-categorical licensure was one way to provide school district personnel more flexibility in hiring when shortages of qualified teachers occurred (Brownell et al., 2010). Teachers were trained to teach students with various disabilities. This was allowable because of their non-categorical certificate as opposed to the previously held disability-specific certificates from the categorical era.

Integrated Era

In the 1990s, more students with disabilities were educated in general education settings as compared to previous decades (Brownell et al., 2010). This movement has been attributed to advocates for people with disabilities who saw inclusion as a moral obligation necessary for improving attitudes towards people with disabilities (Snell, 1991). Litigation during this time included advocacy for educating students with disabilities in the general education environment.

One such case occurred in 1992 when representatives from Designs for Change and the Northwestern University Law Center filed a case on behalf of children in Chicago, Illinois, who were eligible for special education services and received these services in segregated and self-contained classrooms based on their disability categories *(Corey H. et al. v. Board of Education*

of the City of Chicago et al.). After more than 14 years of litigation, *Corey H. v. Board of Education of City of Chicago* became a well-known case across the country and influenced changes to certification programs.

As a result of this lawsuit and consent decree, members of the Illinois State Board of Education (ISBE) agreed to several changes to their preparation and certification of special education teachers. Board members agreed to increase the inclusion of students with disabilities into general education settings by revising special education teacher licensure requirements and adding requirements for general educators to devote 20% of future professional development credits to the study of including students with disabilities in general education settings *(Corey H. et al. v. Board of Education of the City of Chicago et al.*).

The revised plan for special education teacher licensure in Illinois included combining five previous endorsements (EMH, TMH, SED, LD, and PD) into one cross-categorical certification. The newly created Learning Behavior Specialist-1 (LBS-1) license served the majority of students with disabilities in Illinois schools. Concurrently, the re-authorization of the Elementary and Secondary Education Act (ESEA), also known as No Child Left Behind (NCLB), emphasized accountability, improved educational outcomes for students, and increased teacher quality. Teacher candidates completed new coursework requirements to earn their initial teacher certification and acquire "highly qualified" status while current educators in the field acquired "highly qualified" status by taking certain professional development courses. Locally, leaders of educational agencies receiving federal funding were required to have a plan to ensure all teachers within the school district were highly qualified no later than the end of the 2005-2006 school year (NCLB, 2002). Special education teachers with LBS-1 certification met the requirements of NCLB and were highly qualified for their positions.

During previous eras, pre-service special education teachers were mostly instructed in ways to support students with disabilities in self-contained or resource classrooms (Brownell et al., 2010). However, because the integrated era focused on including students with disabilities in general education settings, adjustments to pre-service training were needed to prepare teachers for this new model. Integrated teacher preparation appeared in many different forms, including general education and special education teachers training together (Brownell et al., 2010), ranging from a couple of classes to full dual certification (Kearney & Durand, 1992). In 1992, Englert, Tarrant, and Mariage wrote a pivotal article regarding special education teacher preparation that brought new instructional practices to the field. Englert et al. introduced constructivist principles to special education teacher preparation and encouraged college professors to embed instruction in meaningful and purposeful contexts, encourage classroom dialogs and responsive instruction, and prioritize the importance of a classroom community.

To fulfill federal teacher requirements, special education teachers must have an extensive knowledge base and repertoire of instructional practices for working with students with disabilities and pre-service teachers must take a wide variety of coursework to encompass educational theory and instructional methods for teaching all students with disabilities (Brownell et al., 2010). However, certification and preparation are different across the United States.

Differences in Special Education Certification Programs

Although NCLB mandated several changes to educational programming and teacher certification, some requirements for teacher certification were left to leaders in individual states to control. Three main types of certification styles emerged from this time period: generalist,

mild/moderate-severe/profound, and categorical (Education Commission of the States, 2004). These three types of certification styles will be discussed in detail within this chapter.

The generalist type of certification allows special education teachers to teach most children with disabilities under one single certificate (Education Commission of the States, 2004). A small number of disabilities may still require specialized certification (i.e., teaching students who are deaf or blind), but the generalist certification covers most others, including teaching students with mild, moderate, and severe intellectual abilities, autism, and emotional disabilities. College coursework includes preparation for all disabilities covered under this certification, and generalist certification provides hiring personnel within school districts flexibility in their hiring and staffing practices (Education Commission of the States, 2004).

Mild/Moderate and/or Severe/Profound certification provides candidates with additional and more specialized training specific to students in two groups: students with mild to moderate disabilities and students who have multiple disabilities or are otherwise described as having severe disabilities. This includes students with significant intellectual and physical impairments, severe health conditions, and intellectual disabilities (Education Commission of the States, 2004).

The final type of certification found in some states is categorical certification. Categorical certification requires teachers to receive disability-specific training and become certified in specific disability categories (e.g. learning disabilities, autism; Education Commission of the States, 2004). This certification is the least flexible certification classification, as these teachers can only teach students who have the corresponding disabilities matching their certification.

In 2004, members of the non-partisan Education Commission of the States determined that 29% of states had generalist special education certification, 37% had a special

mild/moderate-severe/profound special education certification, and 33% had categorical special education certification (Education Commission of the States, 2004). It is difficult to ascertain the reason states differ in their special education teacher certification; however, a review of available literature provided some hypotheses.

Lack of available special education teachers is one hypothesis (Education Commission of the States, 2004). NCLB legislation increased the standards and rigor for special educators in the field as well as future educators who had to be "highly qualified" for their position. According to NCLB legislation, highly qualified teachers are appropriately licensed educators who have completed requisite qualifications in core academic subject areas and passed subject-specific state-administered tests (NCLB, 2002). This meant special education teachers took additional math and language arts coursework and passed newly developed tests in addition to coursework and tests originally developed for pre-service special educators (NCLB, 2002). As a result of these changes, some school districts had many unfilled positions (Education Commission of the States, 2004).

Another hypothesis is some state officials changed the certification style to allow teachers to teach students with varying disabilities. NCLB required children be taught in the LRE to the furthest extent possible (NCLB, 2002). This included all placements within the continuum of services from the general education classroom to an alternative separate special education school or hospital. To fulfill this mandate, teachers were certified in some states with general special education certificates to broaden the types of students and settings they could teach (Education Commission of the States, 2004).

To explain further, some special education teachers who had categorical certificates found it difficult to maintain the correct individual certifications in the proper teaching role with

the appropriately matching caseload of students (Education Commission of the States, 2004). For example, a special education teacher certified categorically would need three different certificates to provide special education supports to a student identified as having a learning disability, a student identified as having autism, and a student identified with an emotional disability. Alternatively, some school districts ended up in litigation due to educating students in more restrictive environments, so they could be taught by a teacher with the correct certification (Education Commission of the States, 2004). For example, school district personnel may have placed a student with an emotional disability in a more restrictive, self-contained classroom taught by a special education teacher with an appropriate certificate for that disability even though the student was capable of being successful in a less restrictive educational setting.

Changes to special education certification did not go without challenges. Specialized instruction is required to prepare teachers for curricular demands and how to teach students with differing abilities (Casey, Dunlap, Brister, & Davidson, 2011). In additional to accommodations, modifications, and differentiation within the general education curriculum, students with more significant needs may require different positioning and handling during lessons, help with feeding, access to augmentative and alternative communication modalities, and a stronger focus on functional academics. After these changes were in effect, some new teachers felt planning and instructing students with varying levels of need, especially students with severe and profound disabilities, was challenging (Casey et al., 2011).

A study examining 52 new teachers' perceptions of preparedness for the field of special education found "knowing what to teach" and "classroom management" were the two most difficult components of teaching students with disabilities (Casey et al., 2011). Additional challenges for teachers were lesson planning and meeting the social and emotional needs of

students. Over half of the participants noted time management as a concern; however, a majority of participants did not have difficulty adapting to the school community or communicating with parents. These results suggest teachers in their beginning years of teaching are unsure of what to teach children with special education needs.

In a study of 64 graduates from a midwestern university, special education teachers rated themselves high in providing individualized instruction and behavior support as well as collaborating with peers (Conderman, Johnston-Rodriguez, Hartman, & Walker, 2013), but teachers rated themselves low in transition planning, enhancing language skills, and supervising paraprofessionals. Teachers reported their student teaching and clinical work was very beneficial to them as it provided real-life experiences. Most of these teachers taught in self-contained special education classrooms that served students with moderate to severe disabilities. However, participants noted they wished they had more coursework in working with students with multiple disabilities, as they struggled with differentiating for that population (Conderman et al., 2013). These results suggest new special education teachers could benefit from additional specialized instruction to prepare them for differentiating among students with multiple disabilities.

Statement of the Problem

Pre-service teachers who study special education in generalist-certification states take a wide variety of coursework to add the special education teaching endorsement to their professional educator license. University and school district personnel share the responsibility of implementing the type of certification style of their state; teacher educators prepare candidates

for employment and hiring personnel in school districts trying to find candidates who best suit their open teaching positions.

Most university programs for generalist special education teacher preparation encompass all requirements for certification into a four-year degree, which provides candidates with many different courses but very few that build on each other or expand learning opportunities across multiple courses (Brownell et al., 2010). Meanwhile, many special education teaching positions across the nation go unfilled, and researchers have found many special educators are unprepared for the position (Payne, 2005). The number of students with low-incidence disabilities typically does not exceed 1% of the school's population, and the rarity of the disabilities can pose significant challenges as many schools do not have the appropriate teachers, technology, or support services to best serve these students (Jackson, 2005).

Special educators must have knowledge of academic content and how to teach it, knowledge of how an intensive intervention can address a deficit, and an understanding of how to support students through the use of technology interventions (Brownell et al., 2010). Additionally, special education teachers need the knowledge they had during the categorical era accompanied by interventions, strategies, and an understanding of how processing deficits affect academic learning to help students access the general education curriculum and acquire grade level critical content (Brownell et al., 2010). Without intense study of specific learner characteristics, targeted and narrowly focused researched-based instructional methodology, and applicable student teaching experiences that integrate classroom instruction with actual teaching of students with specific disabilities, teachers may not have the expert knowledge base or the confidence in their preparation to teach students with complex needs they once had when certification was categorical in nature.

In the United States, about 30% of teachers leave the profession within the first three years (Plash & Piotrowski, 2006). Special education teachers in their first year of teaching are two and a half times more likely to leave the profession when compared to their peers who teach general education students (Smith & Ingersoll, 2004). Additional findings suggest that teachers who leave the profession have significantly lower scores on measures of self-efficacy (Glickman & Tamashiro, 1982). In a study by Tschannen-Moran and Hoy (2007), novice teachers reported the amount of support they received in their current teaching position related to their to efficacy beliefs. The support of administrators, colleagues, parents, and community members appeared to be a greater source for higher self-efficacy beliefs for novice teachers when compared to veteran teachers. Belief in one's ability to perform a task has also been shown to be a very powerful motivator to provoke someone to act, put forth effort, and persist through challenges (Bandura, 1997). This suggests appropriate teacher preparation as well as ongoing support and mentoring in the first years of teaching could be critical to the development of efficacy beliefs (Woolfolk Hoy & Burke-Spero, 2005).

Purpose of this Study

The purpose of this study is to examine whether differences in special education teacher preparation programs influence novice teachers' self-efficacy in the areas of classroom management, student engagement, and instructional strategies while teaching students with moderate to severe disabilities in self-contained special education classrooms. This study examined the relationship between novice teachers' self-efficacy and the type of special education teacher certification program they completed.

Rationale for the Study

In 1977, Bandura developed the theoretical framework called social cognitive theory, which can be used to analyze human motivation, thought, and actions. Social cognitive theory accepts a causational relationship among several factors that can act as interacting determinants for other actions, including environmental events, personal factors, and behavior (Bandura, 1977). Two expectancies emerged from this theory: outcome expectancy and efficacy expectancy. Outcome expectancy is the individual's estimate of consequences when performing a given task at the expected level of competence (Bandura, 1986). In contrast, efficacy expectancy is the "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (p. 3) and can be viewed as a motivational construct based on self-perception rather than actual performance (Bandura, 1997).

When applied to the field of education, the latter theory suggests teachers who have a stronger sense of efficacy believe that they can influence, change, or control student achievement (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998), and they exhibit greater organization and planning skills (Allinder, 1994). According to Bandura (1977), self-efficacy comes from four sources: performance accomplishments, vicarious experiences, verbal persuasion, and physiological states. These four sources will be explained further in the next chapter. Researchers have investigated the correlation between teacher efficacy and school-based variables such as access to supplies, building leadership, and the collective efficacy of the school community (Tschannen-Moran & Hoy, 2007). Tschannen-Moran and Hoy (2007) also studied self-efficacy in teachers as it relates to mastery experiences and verbal persuasion from an administrator. These studies compared novice teachers to more experienced teachers and found

the stage of one's career made a difference in self-efficacy beliefs, with more experienced teachers having higher efficacy beliefs, greater satisfaction with performance, and significantly higher levels of teaching resources and support from administrators (Tschannen-Moran & Hoy, 2007).

Significance of the Study

Few researchers have studied sources of teacher self-efficacy beliefs prior to teaching (Labone, 2004). Researchers have not considered how the factors of special education teacher preparation can impact a novice teacher's self-efficacy beliefs. It is important for school leaders and legislators to know if new teachers feel prepared to teach students with moderate to severe disabilities because, according to social cognitive theory, teachers who do not believe they have the skills to educate a student with special education needs will struggle more when faced with challenges and may put forth less effort even when they know strategies for working with students with complex needs (Tschannen-Moran & Hoy, 2007). However, the relationship of performance accomplishments and learning through vicarious experiences can positively influence a teacher's self-efficacy, which in turn can impact student learning (Bandura, 1997).

Studying the relationship between special education teacher preparation and self-efficacy while teaching students with moderate to severe disabilities is beneficial when designing special education teacher preparation programs as well as when hiring new graduates, implementing mentoring programs, and providing targeted professional development. A strong correlation between preparation and self-efficacy may predict more successful first years of teaching and potentially greater outcomes for students based on Bandura's self-efficacy theoretical framework.

Research Questions

In examining the existence of a relationship between special education teacher preparation and self-efficacy, this study addressed the following research questions:

1. How prepared do new special education teachers feel when teaching students with moderate to severe disabilities in a self-contained classroom?
2. In what way does special education teacher certification relate to self-efficacy of new special education teachers of students with moderate to severe disabilities in self-contained classrooms?
3. In what way does having student teaching experience specifically working with students with moderate to severe disabilities in a self-contained classroom relate to self-efficacy of new special education teachers of students with moderate to severe disabilities in a self-contained classroom?

Definitions of Terms

Categorical Certification: Teacher certification that allows special education teachers to teach specific disabilities. To teach a child with a specific disability, the teacher must receive disability-specific training and become certified to have the disability added to his or her teaching certificate.

Education for All Handicapped Children Act (EAHCA): The Education for All Handicapped Children Act (sometimes referred to using the acronyms EAHCA or EHA or PL 94-142) was enacted by the United States Congress in 1975. This Act required public schools in the United States to provide equal access to education for all students with disabilities. The Act required school teams to create educational plans for children with disabilities and provided procedures

for settling disputes between school teams and parents. This was later revised and renamed the Individuals with Disabilities Education Act (IDEA) in 1990. IDEA was reauthorized in 2004 and amended through Public Law 114-95, the Every Student Succeeds Act, in December 2015.

Free and Appropriate Public Education (FAPE): Under IDEA, FAPE is defined as an educational program that is individualized for a specific child with a disability, designed to meet that child's unique needs, provides access to the general curriculum to the greatest extent possible and from which the child receives educational benefit.

Generalist Certification: Teacher certification that allows special education teachers to teach most children with disabilities under one single certificate. A small number of disabilities may still require specialized certification (i.e., teaching students who are deaf or blind), but the generalist certification covers most others, including teaching students with mild, moderate, and severe intellectual abilities, autism, and emotional disabilities.

Highly Qualified Teacher: The highly qualified teacher provision was one goal of the No Child Left Behind Act (NCLB) of 2001. The main goal of the highly qualified teacher provision was to ensure every classroom was staffed by a teacher deemed "highly qualified" to teach that grade level and subject area, meeting conditions set by NCLB.

Individualized Education Plan (IEP): A document developed for each child enrolled in public school who is eligible for special education. The IEP is created through a team effort that may include school staff, parents, and the student. The IEP must include the following: present levels of academic achievement and functional performance, individualized and measurable goals and objectives, supports and related services, and any accommodations the child may need. The plan is reviewed annually and should include input from the parent.

Individuals with Disabilities Education Act (IDEA): The Individuals with Disabilities Education Act (a reauthorization of 1975 EAHCA) is a four-part (A-D) piece of legislation that ensures services to children with disabilities throughout the nation. IDEA governs how states and public agencies provide early intervention, special education, and related services to more than 6.5 million eligible infants, toddlers, children and youth with disabilities. IDEA was reauthorized in 2004 and amended through Public Law 114-95, the Every Student Succeeds Act, in December 2015.

Least Restrictive Environment (LRE): A provision for students with disabilities in the U.S. Individuals with Disabilities Education Act (IDEA). The LRE is an environment where a student with a disability has the opportunity to be educated with non-disabled peers to the greatest extent appropriate as determined by the educational team.

Mild/Moderate-Severe/Profound Certification: Teacher certification that allows special education teachers to teach students who have multiple disabilities or are otherwise categorized as having moderate to severe disabilities. This certification provides special education teachers specialized training specific to serving students in a general category that includes either students with both mild to moderate disabilities or severe and profound disabilities. In this model, teachers need to be endorsed in a general "mild/moderate" category and/or a "severe/profound" category within their state if they wish to teach all students with disabilities in a school setting.

No Child Left Behind (NCLB): The Elementary and Secondary Education Act was reauthorized in 2001 as NCLB. It supported standards-based education reform based on the premise that setting high standards and establishing measurable goals could improve individual outcomes in education. NCLB expanded the federal role in public education through further emphasis on

annual testing, annual academic progress, report cards, and teacher qualifications as well as significant changes in funding.

Self-Efficacy Theory: Self-efficacy theory originated from Bandura's social cognitive theoretical framework, which can be viewed as a motivational construct based on self-perception rather than actual performance. Bandura (1997) wrote that self-efficacy refers to "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (p.3).

Special Education: Special education is the practice of educating students with disabilities in a way that addresses their individual differences and needs. Ideally, this process involves an individually planned and systematically monitored arrangement of teaching procedures, adapted equipment and materials, and accessible settings.

CHAPTER 2

REVIEW OF THE LITERATURE

Organizational Framework of the Review of Literature

This chapter explores research surrounding special education teacher preparation through Bandura's self-efficacy framework. The study addresses the following questions: How prepared do new special education teachers feel when teaching students with moderate to severe disabilities in a self-contained classroom? In what way does special education teacher certification relate to self-efficacy of new special education teachers of students with moderate to severe disabilities in self-contained classrooms? Finally, in what way does having student teaching experience specifically working with students with moderate to severe disabilities in a self-contained classroom relate to self-efficacy of new special education teachers of students with moderate to severe disabilities in a self-contained classroom?

To begin, social cognitive theory and self-efficacy theory are examined, and connections to the field of education are noted. Next, the importance of special education teacher preparation is reviewed, and the significance of student teaching is discussed. There is limited existing research on special education teacher preparation programs and how prepared novice special education teachers feel when teaching students with moderate to severe disabilities. The literature suggests there is little to no change in self-efficacy beliefs once those beliefs are firmly established. The literature review illustrates appropriately preparing teachers for their teaching assignment can be critical to the development of high self-efficacy beliefs in novice teachers.

Social Cognitive Theory

Bandura (1977) developed the social cognitive theoretical framework, which proposed a multifaceted structure linking correlations among the development and execution of competencies through a highly cognitive process. Social cognitive theory, originally called social learning theory, accepts several factors that lead to establishing cognitive, social, and behavioral skills, including the realization of forethought with an emphasis on learning through observation. Through his experiments, Bandura found people can learn through observing, imitating, and modeling behavior. In addition to learning by being rewarded or punished, Bandura proposed people can also learn by watching others be rewarded or punished for their behaviors as supported by the Bobo doll experiment (Bandura, Ross, & Ross, 1961). During this experiment, children watched videos of others performing aggressive acts that were rewarded or punished depending on the group to which the child was assigned. Then the children were observed playing, and imitating behaviors were recorded. The results of this study led to the key underpinnings of social cognitive theory.

The first tenet of Bandura's (1977) social cognitive theory focuses on learning as a cognitive process. His theory views learning through a social construct. This means learning can occur by observing a behavior and by observing the consequences of the behavior. This vicarious reinforcement is the second tenet of the theory and relates to learning through observational reinforcement. The third tenet of social cognitive theory relates observational learning to a person's ability to make decisions about the performance of the behavior they are watching. This cognitive process adds value to the learning experience and creates something more than just a behavior/reward scenario, leading to the fourth tenet, which is reinforcement

plays a role in learning but is not the only predictor. Finally, the fifth tenet implies a learner is not a passive recipient of information but instead is constantly interacting with various influences of cognition, environment, and behavior simultaneously (Bandura, 1977). This reciprocal determinism led to Bandura's theory of self-efficacy.

Self-Efficacy Theory

Self-efficacy theory originated from Bandura's (1977) social cognitive theoretical framework and can be viewed as a motivational construct based on self-perception rather than actual performance. Bandura (1977) defined self-efficacy as "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (p. 3). He proposed self-efficacy beliefs can influence how much effort is given, how people will persist through problems, their resilience when faced with failure, and the amount of stress experienced during a challenging experience. Self-efficacy comes from four sources, including mastery experiences, vicarious experiences, verbal persuasion, and physiological states, and can be impacted by the context in which they develop (Bandura, 1977). These sources are described in more detail and their relationship to teaching is examined below.

Mastery Experiences

Mastery experiences are those in which a person experiences proficiency in what he or she attempts to do (Bandura, 1997). Successful attempts provide a sense of accomplishment and belief in abilities, whereas struggles and failure do the opposite (Bandura, 1997). Mastery experiences build on each other to help formulate a perception of adequacy or mastery of a skill, and once convinced they have the skill, teachers may use this strength when faced with

challenges to persevere (Bandura, 1997). New educators in the field do not have many mastery experiences in their first few years of teaching. In these cases, their self-efficacy is still developing. Positive feelings of joy or accomplishment new teachers experience when they are successful in their teaching can further enhance their self-efficacy. Negative feelings of anxiety, lack of preparedness, enduring mistakes, and loss of control can negatively impact their self-efficacy (Tschannen-Moran & Hoy, 2007).

Mastery experiences can be very influential and lead to high levels of efficacy. However, successful performance of a skill does not always equate to high self-efficacy because other factors can contribute to performance. Self-efficacy can be altered based on perceptions of difficulty, preconceptions of capabilities, the amount of effort given, and assistance provided by an outside source (Bandura, 1997).

Vicarious Experiences

Learning through vicarious experiences occurs when something is modeled by someone else. When adequacy is more obscure or difficult to measure, people will assume their capabilities based on other's actions and abilities (Bandura, 1997). Often people compare themselves to others in similar situations such as coworkers, classmates, or other competitors. Through this relationship, self-efficacy appraisal will vary based on outperforming peers or failing to keep up (Bandura, 1997).

When the subject of modeling is viewed to be similar to the observer (e.g., similar age, gender, socio-economic status, etc.), successful performance typically raises efficacy beliefs (Bandura, 1997). However, this is not to say dissimilarities will prevent one from learning from a diverse source as people will not readily discard information due to diversity, especially if the

observer perceives the model has competence (Bandura, 1997). This is an important distinction as pre-service educators are often paired with older, more experienced teachers in the field during their student teaching, and personal attributes are typically not considered when pairing the two participants. That said, model competence becomes very important in these situations as the student teacher has a lot to learn and the experienced teacher should have a lot to share (Bandura, 1997).

Pre-service teachers in the field completing their student teaching requirements typically have little prior experience with actual teaching. Based on Bandura's (1977, 1997) findings, these students will be developing their sense of self-efficacy related to teaching. Self-doubt and lower self-efficacy may manifest if given mixed experiences of successes and failures during their first teaching moments. Similarly, when the experienced teacher performs well, the self-efficacy beliefs of the student teacher can be enhanced depending on how closely the student teacher identifies with the experienced teacher (Tschannen-Moran & Hoy, 2007).

Verbal Persuasion

Verbal persuasion can also lead to higher levels of self-efficacy (Bandura, 1997). When someone offers encouraging words that relay a belief in capabilities, people will use that information to bolster their efforts and persevere through difficult tasks, as it is easier to believe in oneself when others show they do. Although more limited in its power when compared to mastery and vicarious experiences, verbal persuasion can heighten self-efficacy and offset thoughts of self-doubt and inadequacy (Bandura, 1997). Bandura found that verbal persuasion has the most impact on people who have a reason to believe they can make a difference through their actions. This construct can be applied to pre-service special educators who are going into

the field to make a difference in the lives of children with disabilities. As novice teachers, they may benefit from verbal praise and encouragement, as these self-affirming beliefs can promote the development of skills which can help them reach their goals (Bandura, 1997).

Physiological States

Physiological and emotional states are often telling of one's comfort within a situation due to the accompaniment of somatic indicators (Bandura, 1997). When situations become stressful, people often view their physiological change (e.g., increased heart rate, shortness of breath, shaky hands, stomach ache, etc.) as vulnerability and losing control. When this occurs, people do not feel as confident, as these somatic indicators can be detrimental to one's performance (Bandura, 1997).

Arousal of emotions can add to one's feelings of being capable of a task or feelings of inadequacy or incompetence (Tschannen-Moran & Hoy, 2007). A teacher who experiences joy and excitement while in the classroom may be more motivated to return, plan additional lessons, and have a high sense of self-efficacy when compared to a peer who feels anxious or experiences a high level of stress when in the classroom (Tschannen-Moran & Hoy, 2007). The latter individual may have a lower sense of efficacy due to thoughts of incompetence.

However, people differ in their ability to cope with these somatic states, as some look internally while others view stressors externally (Bandura, 1997). While it is difficult to ignore sweating, tensing, trembling, heart racing, and stomach tightening, physiological states are not the sole predictor of self-efficacy beliefs. The effects are typically internalized through a cognitive process and then viewed in conjunction with other sources of efficacy (Bandura, 1997).

Timing of Self-Efficacy Development

Much of the research in the field of self-efficacy in education has been framed post-graduation, with factors relating to current teaching positions, supports within a school, and student achievement. However, pre-service teachers spend time during their preparation in classrooms learning vicariously through the modeling of master educators and university professors, if not sooner. As Lortie (1975) suggested, teachers actually start an "apprenticeship of observation" as students growing up observing their own teachers. This early teacher association continues during teacher preparation programs (Hoy & Woolfolk, 1990) and further develops as pre-service teachers begin interacting with students and classrooms in the field (King-Sears, Carran, Dammann, & Arter, 2012; Woolfolk, Hoy & Burke-Spero, 2005).

Mastery experiences are considered to be the strongest of the four sources Bandura (1997) identified through his theory of self-efficacy; however, mastery experiences build on each other and develop over time. Novice teachers do not have many mastery experiences at first; therefore, the effects of vicarious experiences, verbal persuasion, and physiological states should be considered when evaluating novice teachers' self-efficacy. Bandura suggested that once self-efficacy beliefs are firmly established, there is little to no change in those beliefs.

Pre-service Special Education Teacher Preparation

Over the last 150 years, special education teacher preparation has progressed and training has evolved from a categorical disability-specific approach to an integrated approach. The focus has also shifted from segregated educational placements to ensuring students with disabilities have access to the general education curriculum to the furthest extent possible (Brownell et al.,

2010). The ability to successfully teach students requires that teachers have high self-efficacy but also the knowledge and skills to do so (King-Sears et al., 2012). O'Shea, Hammitte, Mainzer, and Crutchfield (2000) wrote, "Whether in special or general education, there is a growing consensus that the single most important influence in education, is a well-prepared, caring, and qualified adult" (p. 72); however, debate continues in the field about the importance of teacher preparation programs and their influence in creating highly qualified educators. This section will outline historical debate on teacher preparation, identify current recommendations found within the literature, and demonstrate the need for additional study in this area.

Debate Regarding the Importance of Teacher Preparation

In their controversial publication about teacher quality, members of the United States Department of Education (USDOE, 2002) concluded that teacher preparation was of no value to enhancing student achievement and reported the "best available research shows that solid verbal ability and content knowledge are what matters most" (p. 9). USDOE members also noted new graduates in the field of education were not ready for the reality of classrooms. There are various opinions on the cause of this unpreparedness. Members of the USDOE attributed the lack of qualified teachers in the field of special education to universities' preparation programs, citing "burdensome requirements" (p. 31), while others pointed at *No Child Left Behind* (NCLB) legislation. Some believed the emphasis on accountability and access to the general education curriculum found in NCLB required more courses in content areas, especially for pre-service secondary special educator preparation programs (Branstad, Acosta, Barlett, Berdine, Butterfield, & Chambers, 2002). USDOE members recommended a faster track to certification with less coursework in instructional methods and philosophy and more emphasis in content knowledge.

However, some students with disabilities require more instruction in the area of functional academics and independent functioning. Ayres, Lowrey, Douglas, and Sievers (2011) cautioned against the emphasis on content knowledge. The provisions in IDEA support children with disabilities accessing the general education curriculum to the furthest extent possible while also providing the foundation of preparedness to lead "productive and independent adult lives to the maximum extent possible" (IDEA as cited in Ayres et al., 2011). Students with disabilities who report positive post-school outcomes generally had a very tailored and individualized program that focused on learning independence (Ayres et al., 2011).

Furthermore, additional coursework in content areas may come at a cost. For example, over half of the participants in Bouck's 2005 study noted they did not have field experience with students with learning disabilities and/or mild intellectual disabilities, and 19.5% felt unprepared to teach students in special education at the secondary level. In another study (Loiacono & Allen, 2008), 80% of special education teachers felt they were deficient in their knowledge and use of evidence- and researched-based practices for teaching students with autism.

Recommendations for Quality Special Education Teacher Preparation

In 1998, Wideen, Mayer-Smith, and Moon found four features of preparation programs that produced conceptual change in teacher candidates. Their findings included the use of pedagogy to examine the values and beliefs of pre-service teachers, a strong program and vision that support coherence, a highly collaborative faculty-student relationship in a small-sized program, and thoughtful field placements with ongoing communication and collaboration (Wideen et al., 1998). Brownell, Ross, Colon, and McCallum (2005) echoed the importance of collaboration among faculty, school personnel, and teaching candidates during fieldwork

assignments. Additionally, Van Laarhoven, Munk, Lynch, Bosma, and Rouse (2007) recommended the following competencies be included in both general and special education teacher preparation programs to work effectively with diverse populations: a) collaborative teaming and teaching skills, b) skill in making curricular and instructional accommodations, c) knowledge and skill in assistive technology, and d) positive behavioral support.

Finally, leaders of the Association of American Colleges of Teacher Education (AACTE) and the International Reading Association (IRA) provided further information about the important features of teacher education programs and common features of effective teacher preparation programs (as cited in Brownell et al., 2005). The following ideas emerged: a) coherent program vision; b) carefully designed field experiences; c) monitoring of standards for quality teaching; d) the use of active pedagogy; e) focus on meeting the needs of a diverse population; f) collaboration; and g) blend of instruction in theory, disciplinary knowledge, subject-specific pedagogical knowledge, and practice (Brownell et al., 2005).

Carefully Designed Field Experiences

Student teaching can be considered one of the most important courses in teacher preparation programs (Ergenekon, Ozen & Batu, 2008), especially when the field experience is extensive, well planned, and well supervised (Brownell et al., 2005). Considering some believe a pre-service teacher's field experience is the most critical component of preparation teaching (Prater & Sileo, 2004), the lack of research about the amount or types of field experiences necessary to have a positive impact on future educators is alarming (Cook, 2007). Members of state boards of education who approve teacher education programs do not detail student teaching

requirements as part of their review process. Rather, they are left broad and open for interpretation (Prater & Sileo, 2004).

Buck, Morsink, Griffin, Hines, and Lenk (1992) were unable to conclusively identify the length, sequence, or the responsibilities pre-service teacher candidates should perform during student teaching to become a successful teacher. Buck et al. (1992) found many professionals did not believe a semester of student teaching was enough, although others argued that the length of time does not automatically correlate with improved teacher performance. Over a decade later, Prater and Sileo (2004) found the same results through their review of published literature. In 2008, Ergenekon et al. found student teaching and other practicum opportunities should be extended for a longer amount of time and should align more closely with the first three years of theoretical training to demonstrate the correlation between theory and practice.

Despite the lack of research to clearly prescribe what student teaching should look like, teacher candidates have stated their cooperating teacher was the biggest influence during their student teaching experience, along with previous experience in the classroom, gut feelings, and university coursework (Cook, 2007). These influences affected their planning, teaching style, teaching methods, behavior management, and way of handling a difficult moment (Cook, 2007). Interestingly, cooperating teachers were rated significantly more influential than the information gleaned from university coursework in most areas of instruction, with the exception of behavior management; this was the one area in which student teachers said they relied on university coursework to support their decision making (Cook, 2007). However, some teacher candidates found it difficult to connect theory to practice regarding behavior management in special education classrooms (Ergenekon et al., 2008)

This influence of cooperating teachers further supports the need to place special education teacher candidates with cooperating teachers who use research-based instructional practices (Cook, 2007). Ensuring cooperating teachers use effective research-based instructional practices can have considerable impact on the next generation of special education teachers (Cook, 2007). A positive student teaching experience may increase teacher candidates' perception of their preparedness for teaching (Hersh, Hull, & Leighton, 1982).

Summary

In summary, a majority of the research supports extensive preparation yields more qualified teachers (Boe, Shin, & Cook, 2007). Researchers have found extraordinary special education teacher programs include a high level of communication and collaboration among professors, educators in the field, students, and field placements. Additionally, coursework should include a blend of instruction in theory, disciplinary knowledge, subject-specific pedagogical knowledge, and application. Finally, field placements should be thoughtful and well supported.

In theory, these recommendations appear to be simple to implement; however; in practicality, licensure for teaching in the field of special education across the United States differs, as does the preparation. Further study of different preparation programs and their correlation to self-efficacy will add to the literature on quality special education teacher preparation.

CHAPTER 3

METHODOLOGY

Introduction

The purpose of this study was to determine the relationship between teacher self-efficacy and special education teacher preparation and certification. This chapter outlines the methodology employed in this study. First, the research design is discussed, followed by population and sample descriptions. Next, the instruments are explained, along with procedures and the data analysis plan. The results of this study add to the current research on teacher preparation, can influence education policy, and may assist in the development of teacher training programs and ongoing teacher professional development.

Research Design

This study employed a quantitative correlational design. This study examined how differences in special education teacher preparation programs influence novice teachers' self-efficacy in the areas of classroom management, student engagement, and instructional strategies during the first five years of teaching students with moderate to severe disabilities in a self-contained special education classroom. A quantitative correlational design was chosen to determine if a relationship exists among variables examined in this study. Participants in this study completed an online survey designed to identify the type of special education teacher preparation program they completed, using certification descriptors as well as their self-reported

level of self-efficacy. Participants' responses to the survey were compared to the type of special education teacher preparation program they completed. The independent variable in this study is the type of teacher preparation (e.g., generalist, mild/moderate-severe/profound, and categorical certification). The dependent variable is self-efficacy. All collected data were self-reported by teachers using a Likert-type scale. Relationships among key quantitative variables were examined via statistical analyses.

Participants

After initial distribution and a low response rate, I re-examined the target population and used additional methods of communication to encourage participation in the study. The initial design as well as alterations to the population sample and recruitment are described below in subsequent sections.

Initial Participant Selection Process

The initial targeted population for this study was new special education teachers, with five or less years of experience, who teach students with moderate to severe disabilities in randomly selected school districts in the United States. New special education teachers are defined as teachers within their first five years of teaching who teach students between the ages of 3-21 with moderate to severe disabilities within a self-contained special education classroom environment in a public school. This population was selected for this study to focus on the influence of their teacher preparation and minimize other factors that may contribute to self-efficacy, such as building culture, leadership, mentoring programs, and years of experience.

To represent different types of special education teacher preparation programs available throughout the United States as well as urban and rural school districts, participants were recruited from different states to reflect the generalist, mild/moderate-severe/profound, and categorical licensure as originally published in the 2004 publication, *Special Education Teacher Certification/Licensure and Endorsement Categories*, by the Education Commission of the States.

The Generalist type of certification/licensure allows special education teachers to teach most children with disabilities under one single certificate (Education Commission of the States, 2004). A small number of disability categories may still require specialized certification (i.e., teaching students who are deaf or blind), but the generalist certification covers most others, including teaching students with mild, moderate, and severe intellectual abilities, autism, and emotional disabilities.

The Mild/Moderate and/or Severe/Profound certification/licensure provides special education teacher candidates with specific training for teaching students with either mild to moderate disabilities as one type of certification or students with multiple disabilities/severe disabilities as the other type of special education teacher certification (Education Commission of the States, 2004).

The Categorical certification requires teachers to receive disability-specific training and become certified in individual disability categories to teach a student identified with having the corresponding disability (Education Commission of the States, 2004). For example, the special education teacher with categorical certification could have learning disabilities and autism listed on his or her certificate, and if so, the teacher is only certified to teach students with learning disability and/or autism listed as the eligibility for special education on the student's IEP.

For each category of certification/licensure, four states were selected if their current certification/licensure structure was the same as it was when originally published by the Education Commission of the States in 2004. Once the four states were selected for each type of licensure, three school districts within that state (one of each: urban, rural, suburban) were randomly selected for a total of 36 school districts. See Table 1 for a full listing of the states and school districts originally invited to participate in this study. Data were gathered from multiple sources, including school district websites, state websites, and calls to state boards of education and regional offices of education.

Altered Participant Selection Process

After an initial low response rate of 11 participants, a delimiting question was altered. Originally, participants with more than five years of teaching experience were exited from the survey without answering the rest of the questions. This question was altered to allow all respondents to document their number of years teaching and continue with the rest of the survey despite having more than five years of teaching experience.

Additionally, after the initial low response rate, recruitment procedures were altered. Originally, administrators were asked to forward electronic communication about the study to the special education teachers in their school/district. To recruit more participants, this approach was altered, and teachers were invited to participate through Educational Twitter chats (EdChats).

Table 1

States and School Districts Selected for Study

Type of Certification/Licensure	State	School District	Total Enrollment Rural/Suburban/ Urban	% of Low Income Students	% of Students with Disabilities	% of English Learners	Ethnicity
Generalist	Illinois	Cicero SD #99	12,479 Urban	92%	12%	52%	White (3.7%) Black (1.8%) Hispanic (92.6%) Asian (0.2%) American Indian (1.6%) Two or More Races (0.1%) Pacific Islander (0%)
Generalist	Illinois	Barrington School District #220	8,850/ Suburban	19%	19%	%7	White (63.7%) Black (1.6%) Hispanic (17.8%) Asian (13.4%) American Indian (0.1%) Two or More Races (3.3%) Pacific Islander (0%)
Generalist	Illinois	Carbondale ESD #95	1,153 Rural	49%	15%	12%	White (33.4%) Black (45.1%) Hispanic (11.4%) Asian (3.8%) American Indian (0.3%) Two or More Races (6%) Pacific Islander (0.1%)
Generalist	Colorado	Aspen School District #1	1,727 Rural	4.17%	7.86%	8.69%	White (84.31%) Black (1.04%) Hispanic (11.93%) Asian (1.68%) American Indian (<1%) Two or More Races (<1%) Pacific Islander (<1%)

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Type of Certification/Licensure	State	School District	Total Enrollment Rural/Suburban/ Urban	% of Low Income Students	% of Students with Disabilities	% of English Learners	Ethnicity
Generalist	Colorado	Denver County 1	90,234 Urban	68.46%	10.61%	31.55%	White (22.73%) Black (13.47%) Hispanic (56.21%) Asian (3.27%) American Indian (0.64%) Two or More Races (3.45%) Pacific Islander (0.22%)
Generalist	Connecticut	New Haven	21,725 Urban	57.2%	13%	14.6%	White (14.3%) Black (40.4%) Hispanic (41.8%) Asian (2.4%) American Indian (0.2%) Two or More Races (0.8%) Pacific Islander (0%)
Generalist	Connecticut	Fairfield School District	10, 091 Suburban	8.9%	11.1%	2.1%	White (79.5%) Black (2.2%) Hispanic (9%) Asian (5.9%) American Indian (0.1%) Two or More Races (3.3%) Pacific Islander (0.1%)
Generalist	Connecticut	Easton School District	922 Rural	3.7%	9.9%	0.8%	White (85.9%) Black (1.1%) Hispanic (5.9%) Asian (4.8%) American Indian (*%) Two or More Races (2.1%) Pacific Islander (*%)
Generalist	New York	Buffalo City Public Schools	31,359 Urban	82%	22%	15%	White (20%) Black (48%) Hispanic (19%) Asian (9%) American Indian (1%) Two or More Races (3%) Pacific Islander (*%)

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Type of Certification/Licensure	State	School District	Total Enrollment Rural/Suburban/ Urban	% of Low Income Students	% of Students with Disabilities	% of English Learners	Ethnicity
Generalist	New York	Sweet Home Central School District	3,153 Suburban	47%	8%	5%	White (68%) Black (19%) Hispanic (6%) Asian (6%) American Indian (0%) Two or More Races (2%) Pacific Islander (*%)
Generalist	New York	Starpoint Central School District	2,655 Rural	20%	12%	1%	White (94%) Black (1%) Hispanic (2%) Asian (1%) American Indian (0%) Two or More Races (2%) Pacific Islander (*%)
Mild/Moderate and/or Severe/Profound	Ohio	Cleveland Metro School District	39,125 Urban	100%	22%	9.3%	White (15.4%) Black (64.9%) Hispanic (15.6%) Asian (1.3%) American Indian (0.2%) Two or More Races (2.6%) Pacific Islander (*%)
Mild/Moderate and/or Severe/Profound	Ohio	Forest Hills School District	7,089 Suburban	11.5%	8.8%	1.3%	White (88.9%) Black (1.9%) Hispanic (3%) Asian (2.5%) American Indian (NC%) Two or More Races (3.6%) Pacific Islander (*%)
Mild/Moderate and/or Severe/Profound	Ohio	Warrensville Heights City School District	1,537 Rural	54.8%	23.1%	NC=Not Calculated total is <10	White (NC%) Black (97.1%) Hispanic (1.6%) Asian (NC%) American Indian (NC%) Two or More Races (NC%) Pacific Islander (NC%)
Mild/Moderate and/or Severe/Profound	Oklahoma	Oklahoma City Public School	46,000 Urban	62.37%	15%	33%	White (15%) Black (24%) Hispanic (52%) Asian (2%) American Indian (3%) Two or More Races (4%) Pacific Islander (NC%)

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Type of Certification/Licensure	State	School District	Total Enrollment Rural/Suburban/ Urban	% of Low Income Students	% of Students with Disabilities	% of English Learners	Ethnicity
Mild/Moderate and/or Severe/Profound	Oklahoma	Perry Public Schools	1,196 Rural	61%	13.5%	1.3%	White (77.9%) Black (2.3%) Hispanic (5.4%) Asian (0.8%) American Indian (9.5%) Two or More Races (3.9%) Pacific Islander (0.2%)
Mild/Moderate and/or Severe/Profound	California	Folsom Cordova Unified School District	19,527 Urban	33.6%	13%	1.5%	White (54.6%) Black (6.7%) Hispanic (18.3%) Asian (14.8%) American Indian (0.7%) Two or More Races (4.1%) Pacific Islander (0.8%)
Mild/Moderate and/or Severe/Profound	California	Laguna Beach Unified School District	3,045 Suburban	8.7%	8.3%	1.5%	White (81.4%) Black (.8%) Hispanic (10.3%) Asian (3%) American Indian (0.6%) Two or More Races (2.4%) Pacific Islander (0.5%)
Mild/Moderate and/or Severe/Profound	California	Alpine Union Elementary	1,745 Rural	33.8%	13%	5.6%	White (63.7%) Black (2.1%) Hispanic (22.9%) Asian (1%) American Indian (04.6%) Two or More Races (2.9%) Pacific Islander (0.4%)
Mild/Moderate and/or Severe/Profound	Rhode Island	Central Falls School District	2,589 Urban	81%	23%	26%	White (13%) Black (15%) Hispanic (65%) Asian (1%) American Indian (2%) Two or More Races (3%) Pacific Islander (*%)

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Type of Certification/Licensure	State	School District	Total Enrollment Rural/Suburban/ Urban	% of Low Income Students	% of Students with Disabilities	% of English Learners	Ethnicity
Mild/Moderate and/or Severe/Profound	Rhode Island	Bristol Warren Regional School District	3,218 Suburban	48%	15%	8%	White (87%) Black (2.%) Hispanic (5%) Asian (2%) American Indian (*%) Two or More Races (4%) Pacific Islander (*%)
Mild/Moderate and/or Severe/Profound	Rhode Island	Chariho Regional School District	3,270 Rural	48%	15%	8%	White (91%) Black (1%) Hispanic (3%) Asian (1%) American Indian (2%) Two or More Races (3%) Pacific Islander (0.4%)
Categorical	South Carolina	Beaufort County School District	21,681 Urban	56.1%	9.3%	Not published	White (43%) Black (29%) Hispanic (24%) Asian (1%) American Indian (0%) Two or More Races (3%) Pacific Islander (0*)
Categorical	South Carolina	Lexington School District 4	3,329 Suburban	77.7%	14.4	Not published	White (66%) Black (19%) Hispanic (10%) Asian (0%) American Indian (1%) Two or More Races (4%) Pacific Islander (0*)
Categorical	South Carolina	Newberry County Schools	6,113 Rural	67.3%	14.5%	Not published	White (46%) Black (36%) Hispanic (14%) Asian (<1%) American Indian (<1%) Two or More Races (3%) Pacific Islander (0%)

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Type of Certification/Licensure	State	School District	Total Enrollment Rural/Suburban/ Urban	% of Low Income Students	% of Students with Disabilities	% of English Learners	Ethnicity
Categorical	Kentucky	Boone County Schools	20,160 Suburban	38.1%	11.8%	5.6%	White (82.5%) Black (3.9%) Hispanic (7.2%) Asian (2.5%) American Indian (0.1%) Two or More Races (3.6%) Pacific Islander (0.3%)
Categorical	Kentucky	Trigg County Public Schools	1,982 Rural	62.4%	11.9%	0.1%	White (83%) Black (8%) Hispanic (2.8%) Asian (0.5%) American Indian (0.2%) Two or More Races (5.4%) Pacific Islander (0%)
Categorical	Alaska	Pelican City School District	13 Rural	0%	23.1%	0%	White (69.2%) Black (0%) Hispanic (0%) Asian (0%) American Indian (0%) Two or More Races (0%) Pacific Islander (30.8%)
Categorical	Alaska	Yukon Flats School District	244 Rural	82.8%	22%	16%	White (.8%) Black (0%) Hispanic (0%) Asian (0%) American Indian (97.5%) Two or More Races (1.6%) Pacific Islander (0%)
Categorical	Alaska	Northwest Arctic Borough School District	2.174 Rural	99.3%	13.4%	15.7%	White (2.7%) Black (.5%) Hispanic (.1%) Asian (.1%) American Indian (93.8%) Two or More Races (2.7%) Pacific Islander (.1%)

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Type of Certification/Licensure	State	School District	Total Enrollment Rural/Suburban/ Urban	% of Low Income Students	% of Students with Disabilities	% of English Learners	Ethnicity
Categorical	West Virginia	Putnam County Schools	9,715 Suburban	39%	17%	1%	White (94.3%) Black (1.6%) Hispanic (1.1%) Asian (.9%) American Indian (.1%) Two or More Races (1.6%) Pacific Islander (0%)
Categorical	West Virginia	Kanawha County Schools	28,481 Urban	75%	15%	1%	White (85.9%) Black (8.4%) Hispanic (.9%) Asian (1.1%) American Indian (.08%) Two or More Races (3.2%) Pacific Islander (.07%)
Categorical	West Virginia	Summers County Schools	1,559 Rural	100%	14%	0%	White (93.9%) Black (1.6%) Hispanic (0%) Asian (0%) American Indian (0%) Two or More Races (3.7%) Pacific Islander (0%)

EdChats occur online using Twitter as a platform. EdChats typically focus on a specific topic, subject, or grade level and are open to all educators. All EdChats feature a set of questions that chat participants respond to and discuss electronically. EdChats typically last about an hour and are a way for educators to grow their professional network and participate in professional development. In hopes of collecting responses from teachers across the United States, states initially identified for participation in this study were targeted with the exception of Colorado, Alaska, and West Virginia, as statewide EdChats could not be identified. See Table 2 for all EdChats targeted for study participation.

Additional study participants were teachers who participated in EdChats between December 3 and December 7, 2017, or teachers who learned about this study from an educator who participated in an EdChat during this time. The number of active participants in the EdChats is difficult to quantify but ranged from 5-10 to as many as 50+ and included administrators, special education teachers, and general education teachers. Many participants "liked" or retweeted tweets about this study, which helped the survey reach an extended pool of followers. Some participants in the EdChats noted they would send the survey to the special education teachers in their buildings or in their districts. Additionally, invitations to participate in the study were shared through other social media networks such as Facebook and through word of mouth/email by current special education teachers. Due to the variables noted above, it is difficult to determine the full potential pool of participants for this study.

Table 2

Alphabetical Listing of Sampled State-wide Education Twitter Chats

Chat Name	Twitter Hashtag
California Ed Chat	#caedchat
Connecticut Ed Leadership Chat	#ctedlead
Ed Chat Rhode Island	#edchatri
Illinois Ed Chat	#iledchat
Kentucky Ed Chat	#kyedchat
New York Ed Chat	#nyedchat
Ohio Ed Chat	#ohedchat
Oklahoma Ed Chat	#oklaed
South Carolina Ed Chat	#sced

Participant Sample

Participants were individuals employed as special education teachers throughout the United States who were teaching in public schools serving students ranging in age from 3-21 years old. Although there is not a way to capture how many special education teachers received an invitation to participate in the survey (as an anonymous link was used and made public through social media), 121 teachers participated in the survey and all gave consent to participate. Of the 121 teachers who started the survey, 15 participants completed only 2% to 63% of the survey; therefore, their data were deleted from the sample.

The remaining 106 participants were composed of five males, 100 females, and one respondent who did not report gender. A majority (69%) of the respondents held master's degrees, while 30% held bachelor's degrees and one respondent held a doctoral degree. Respondents took an average of 12 minutes to complete the survey, and all respondents were current special education teachers. The average participant was 39 years old, and the average

age when participants received their initial special education teacher certification was 25. Over 50% of respondents reported their student teaching was better than "somewhat helpful," and of the 54 respondents who participated in a mentoring program, 50% reported their mentoring program was better than "somewhat helpful." The grade levels served by these special education teachers varied from early childhood through transition, with the largest percentage (42%) serving students at the elementary level.

Instrumentation

This study utilized one existing measure: the Teacher Self-Efficacy Scale (TSES; Tschannen-Moran & Woolfolk Hoy, 2001). In addition, several demographic variables were collected as described in greater detail below. All data were collected electronically via Qualtrics, and the original window of data collection was open for four weeks. After alterations, the new survey was open for two weeks. The entire survey, including the TSES and demographic questions, is shown in Appendix A. Appendix B shows permission to use the TSES.

Teacher Self-Efficacy Scale (TSES)

The TSES was developed by Tschannen-Moran and Woolfolk Hoy (2001) to examine overall teacher self-efficacy in three specific areas: instructional strategies, classroom management, and student engagement. Two forms of the TSES are available: a long form and a short form. The long form has 24 items, and the short form has 12 items; all items on both scales are rated with a 9-point Likert-type response. After Tschannen-Moran and Woolfolk Hoy (2001) tested their instrument in three different studies to assess the tool's reliability and validity, they

concluded the TSES was reasonably valid and reliable based on construct validity analyses and results. The researchers found the long form had a reliability of .94, and the short form had a reliability of .90. The validity of the tool was correlated to the original RAND study (Armor et al., 1976) as well as Gibson and Dembo's (1984) teacher self-efficacy tool. Tschannen-Moran and Woolfolk Hoy also concluded the three dimensions of efficacy for instructional strategies, student engagement, and classroom management represented requirements of quality teaching for content validity and the forms were better than the previously developed measures of teacher self-efficacy.

The long form of TSES consists of 24 questions about teacher responsibilities that may create difficulties for a new teacher. After reading each belief, teachers respond to the question "How much can you do?" using a Likert scale rating of 1-9 (Scale: 1=nothing, 3=very little, 5=some influence, 7=quite a lot, 9=a great deal). The long version of the TSES was chosen for this study because it demonstrated higher reliability coefficients on both the overall scale as well as for each of the three subscales. See Table 3 for a list for a full listing of the items and alpha reliability coefficients of the various scales.

Table 3

Teachers' Sense of Efficacy Scale

Subscale	Question Number	Wording
Efficacy in Student Engagement Alpha = .81	1	How much can you do to get through to the most difficult students?
	2	How much can you do to help your students think critically?
	4	How much can you do to motivate students who show low interest in school work?
	6	How much can you do to get students to believe they can do well in school work?
	9	How much can you do to help your students value learning?
	12	How much can you do to foster creativity?
	14	How much can you do to improve the understanding of a student who is failing?
	22	How much can you assist families in helping their children do well in school?
Efficacy in Instructional Strategies Alpha = .86	7	How well can you respond to difficult questions from your students?
	10	How much can you gauge student comprehension of what you have taught?
	11	To what extent can you craft good questions for your students?
	17	How much can you do to adjust your lessons to the proper level for individual students?
	18	How much can you use a variety of assessment strategies?
	20	To what extent can you provide an alternative explanation or example when students are confused?
	23	How well can you implement alternative strategies in your classroom?
	24	How well can you provide appropriate challenges for very capable students?
Efficacy in Classroom Management Alpha = .86	3	How much can you do to control disruptive behavior in the classroom?
	5	To what extent can you make your expectations clear about student behavior?
	8	How well can you establish routines to keep activities running smoothly?
	13	How much can you do to get children to follow classroom rules?
	15	How much can you do to calm a student who is disruptive or noisy?
	16	How well can you establish a classroom management system with each group of students?
	19	How well can you keep a few problem students from ruining an entire lesson?
	21	How well can you respond to defiant students?

Demographic Questions

In addition to the TSES, respondents were asked to respond to demographic questions. Demographic questions were originally included in the survey to exclude more experienced teachers and general education teaching staff from participating in the study. However, once altered, demographic questions were used to create a larger and more diverse sample. Demographic questions included questions on gender, current age, age when initially certified in special education, highest level of education, college/university attended, the state participant was/is certified to teach special education, certification type, additional information about their student teaching experience, and additional information about their current teaching placement.

To collect the most accurate information, each participant was asked to name the state board of education that issued the teaching certificate and select the most appropriate description of the certification type. A fourth option was included to allow participants to write additional information about their certification to help with identification. The following descriptors were used:

- Categorical Certification: Teachers receive disability-specific training and become certified to teach specific disabilities. To teach a child with a specific disability, the teacher must have the disability added to the teaching certificate.
- Mild/Moderate and/or Severe/Profound Certification: Provides special education teachers with additional, more specialized training specific to serving students who have multiple disabilities or are otherwise categorized as having severe disabilities. This includes students with physical impairments, severe health conditions, and severe intellectual disabilities. In this model, teachers would need to be endorsed in a

general "mild/moderate" category and/or a "severe/profound" category within their state if they wished to teach all students with disabilities in a school setting.

- Generalist Certification: Allows special education teachers to teach most children with disabilities under one single certificate. A small number of disabilities may still require specialized certification (i.e., teaching students who are deaf or blind), but the generalist certification covers most others, including teaching students with mild, moderate, and severe intellectual abilities, autism, and emotional disabilities.

Study Procedures

After initial distribution and low response rate, the data collection strategies were modified. The initial and altered study procedures are described below in subsequent sections.

Initial Study Procedure

After approval from the Institutional Review Board, I sent an email describing the study to the superintendent, director of special education, or other designee in charge of special education programming in each randomly selected school district. Please see Appendix C for initial contact email. The email outlined the study and included an embedded link to take the online survey. I requested the information be forwarded to the special education teaching staff. When staff clicked the link, they were asked to read additional information about the study and consent to participation via Qualtrics (see Appendix D). If the participant did not consent, he or she was exited from the survey. Consenting participants were taken to the first of three delimiting questions. Delimiting questions were used to narrow the participant sample to match the previously described definition of new special education teacher. Delimiting questions

included a question to confirm the participant was a special education teacher, a question to confirm the participant has five years or less of teaching experience, and a question to confirm the teacher teaches a special education classroom for students with moderate to severe disabilities. If the participant did not confirm correct answers to these three questions, he or she was exited from the survey.

Once participants successfully completed the first three questions, they were asked the remainder of the demographic questions and then entered the TSES survey. All demographic and TSES survey questions were required. All participant identities and responses remained anonymous. A reminder email was sent two times due to a limited response rate of only 11 participants (see Appendix E).

Altered Study Procedure

After re-approval by the Institutional Review Board, I altered the study procedures. Changes to the survey included removing delimiting questions. The two questions that no longer restricted participants from participating in the survey included the question to confirm the participant had only five or less years of teaching experience and the question to confirm the teacher teaches in a special education classroom for students with moderate to severe disabilities. Due to this change, all study participants were able to answer all questions, which increased the sample size from 11 to 106.

Additionally, Twitter EdChats were used to recruit additional participants. A published list of weekly EdChats was used to identify education chats occurring in the previously identified states. Tweets using the hashtag for the EdChats were posted to make all chat participants aware of the opportunity to participate in a study on special education teacher preparation and self-

efficacy. See Table 4 for general tweets used. Chat participants were asked to take the survey and encouraged to share the survey with others. When participants clicked on the link embedded in the tweet, they were sent to the online survey. The survey allowed participants to provide their consent, and participation was completely anonymous. This procedure was followed for each identified EdChat. After analyzing data, participants' responses were deleted from Qualtrics storage.

Table 4

Tweets Used for Data Collection

General Tweet Format
[#hashtag] Pease help an EdD student looking for teachers to take a survey on Special Ed Teacher Prep. Takes 10 mins. Please share! [link to survey]
It's almost time for [#hashtag]. Please take a few minutes to demonstrate the power of Special Education PLNs by taking my survey. Please share! [link to survey]
[#hashtag] is almost over. Afterwards take my survey on Special Ed Teacher Prep! Only takes about 10 mins. Please share! [link to survey]

Data Analysis

Preliminary analysis of survey data provided information about the study sample to examine the relationship among primary variables. This included descriptive statistics and reliability coefficients from the TSES survey. Descriptive statistics described the characteristics of the participants, including certification type, student teaching experience, and years in the field. A factor analysis was used to determine how participants responded to questions. A multi-variate analysis of variance (MANOVA) was run to investigate whether a correlation existed

between certification types and self-efficacy in the areas of efficacy in instructional strategies, classroom management, student engagement and overall self-efficacy.

Research Questions and Hypotheses

The following research questions and related hypotheses were examined:

1. How prepared do new special education teachers feel when teaching students with moderate to severe disabilities in a self-contained classroom?

   Hypothesis 1: New special education teachers will have lower levels of self-efficacy when teaching students with moderate to severe disabilities in a self-contained classroom when compared to special education teachers who teach students with disabilities in other settings.

2. In what way does special education teacher certification relate to self-efficacy in new special education teachers of students with moderate to severe disabilities in self-contained classrooms?

   Hypothesis 2: Teachers who received disability-specific certification will have the highest levels of self-efficacy when teaching students with moderate to severe disabilities in self-contained classrooms. Teachers who received generalist certification will have the lowest levels of self-efficacy when teaching students with moderate to severe disabilities in self-contained classrooms. Teachers who received mild/moderate and/or severe/profound certification will have higher levels of self-efficacy when compared to generalists and lower levels of self-efficacy when compared to categorically certified teachers who teach students with moderate to severe disabilities in self-contained classrooms.

3. In what way does having student teaching experience specifically working with students with moderate to severe disabilities in a self-contained classroom relate to self-efficacy of new special education teachers of students with moderate to severe disabilities in a self-contained classroom?

   Hypothesis 3: Teachers who experienced a student teaching experience specifically working with students with moderate to severe disabilities in a self-contained classroom will have higher levels of self-efficacy than those who did not have that experience and currently teach in a self-contained classroom.

CHAPTER 4

RESULTS

Preliminary Analyses

Prior to examining the formal research questions, Chronbach's alpha coefficients were calculated for all TSES subscales (Table 5) and compared to the alpha coefficients reported by the test developers to ensure measures demonstrated adequate reliability with the current sample.

Table 5

Reliability Coefficients (Cronbach's Alphas) for TSES Subscales and Total

Subscale	Items	Alpha
TSES Student Engagement	8	.90
TSES Instruction	8	.91
TSES Management	8	.92
TSES Total	24	.96

Research Question 1

How prepared do new special education teachers feel when teaching students with moderate to severe disabilities in a self-contained classroom?

Prediction 1a: It was predicted that new special education teachers would have lower levels of self-efficacy when teaching students with moderate to severe disabilities in a self-

contained classroom when compared to colleagues who teach students with mild/moderate disabilities in other settings. This prediction was not supported.

To examine Research Question 1, a two-way multivariate analysis of variance (MANOVA) was used to consider the possible interaction between two independent variables on multiple dependent variables. Teachers were placed into groups based on the number of years of experience: five or less years were considered novice teachers and those with six or more years were considered not novice. This grouping variable served as one of the independent variables (IV) for the study. The second IV was current teaching placement (self-contained or other setting). Dependent variables for this analysis included the TSES subscales of student engagement, instructional strategies, classroom management, and total self-efficacy.

The results of the MANOVA were not significant. The main effect of experience (novice vs. not novice) was not significant, Wilk's lambda = .980, $F(3, 100) = .678$, $p=.567$. The main effect of teaching placement (self-contained vs. other setting) was not significant, Wilk's lambda = .966, $F(3, 100) = 1.18$, $p=.320$, and the interaction term of experience X teaching placement was not significant, Wilk's lambda = .932, $F(3, 100) = 2.44$, $p=.069$. Because the overall MANOVAs were not significant, follow-up ANOVAs were not analyzed. Please see Table 6 for a breakdown of means and standard deviations for each group.

Table 6

Descriptives for Research Question 1

	Self-Contained		Not Self-Contained		Total	
	5 or less years n = 15	6 or more years n = 44	5 or less years n = 12	6 or more years n = 35	5 or less years n = 27	6 or more years n = 79
TSES Student Engagement	6.32 (1.38)	7.00 (1.06)	7.11 (0.95)	6.98 (1.12)	6.67 (1.25)	6.99 (1.08)
TSES Instruction	6.79 (1.15)	7.66 (0.91)	7.63 (0.72)	7.33 (1.67)	7.16 (1.06)	7.51 (1.04)
TSES Management	7.00 (1.02)	7.85 (0.85)	7.60 (0.83)	7.41 (1.25)	7.27 (0.97)	7.65 (1.06)
TSES Total	6.70 (1.10)	7.50 (0.85)	7.45 (0.74)	7.24 (1.10)	7.03 (1.01)	7.39 (0.97)

Research Question 2

In what way does special education teacher certification relate to self-efficacy of new special education teachers of students with moderate to severe disabilities in self-contained classrooms?

Prediction 2a: It was predicted that teachers who received disability-specific certification will have the highest levels of self-efficacy when teaching students with moderate to severe disabilities in self-contained classrooms. This prediction was not supported.

Prediction 2b: It was predicted that teachers who received generalist certification will have the lowest levels of self-efficacy when teaching students with moderate to severe disabilities in self-contained classrooms. This prediction was not supported.

Prediction 2c: It was predicted that teachers who received mild/moderate and/or severe/profound certification will have higher levels of self-efficacy when compared to generalists and lower levels of self-efficacy when compared to categorically certified teachers who teach students with moderate to severe disabilities in a self-contained classroom. This prediction was not supported.

To examine Research Question 2 and corresponding predictions, a two-way MANOVA was conducted. Independent variables for this analysis included certification type (Generalist, Categorical, and Mild/Moderate-Severe Profound) and current teaching placement (self-contained or other setting). The dependent variables included TSES subscales, including student engagement, instructional strategies, classroom management, and total self-efficacy.

The results of the MANOVA were not significant. The main effect of certification type was not significant, Wilk's lambda = .947, $F(6, 196) = .896$, $p=.499$. The main effect of teaching placement (self-contained vs. other setting) was not significant, Wilk's lambda = .977, $F(3, 198) = .776$, $p=.510$, and the interaction term of certification type X teaching placement was not

significant, Wilk's lambda = .918, $F(6, 196) = 1.42$, p=.280. Because the overall MANOVAs were not significant, follow-up ANOVAs were not analyzed. Please see Table 7 for a breakdown of means and standard deviations for each group.

Research Question 3

In what way does having a student teaching experience specifically working with students with moderate to severe disabilities in a self-contained classroom relate to self-efficacy of new special education teachers of students with moderate to severe disabilities in a self-contained classroom?

Prediction 3a: It was predicted that teachers who experienced a student teaching placement specifically working with students with moderate to severe disabilities in a self-contained classroom would have higher levels of self-efficacy than those who did not have that experience but currently teach in a self-contained classroom. This prediction was not supported.

To examine Research Question 3, a MANOVA was conducted. The independent variable was a similarity between student teaching experience and current teaching position in a self-contained classroom (similar vs. dissimilar). The dependent variables included TSES subscales: student engagement, instructional strategies, classroom management, and total self-efficacy.

The results of the MANOVA were not significant, Wilk's lambda = .971, $F(3, 55) = .542$, p=.656, indicating no differences between groups of teachers who currently teach in placements similar to their student teaching versus those who do not. Because the overall MANOVAs were not significant, follow-up ANOVAs were not analyzed. Please see Table 8 for a breakdown of means and standard deviations for each group.

Table 7

Descriptives for Research Question 2

	Self-Contained			Not Self-Contained			Total		
	Group One	Group Two	Group Three	Group One	Group Two	Group Three	Group One	Group Two	Group Three
	n = 10	n = 40	n = 9	n = 8	n = 34	n = 5	n = 18	n = 74	n = 14
TSES Student Engagement	7.20 (1.09)	6.68 (1.21)	7.07 (1.11)	7.16 (0.63)	6.92 (1.15)	7.40 (1.10)	7.18 (0.89)	6.79 (1.18)	7.89 (1.08)
TSES Instruction	8.19 (0.64)	7.27 (1.00)	7.36 (1.22)	7.40 (0.84)	7.30 (1.14)	8.10 (0.78)	7.84 (0.82)	7.28 (1.06)	7.63 (1.11)
TSES Management	8.24 (0.68)	7.48 (1.01)	7.61 (0.82)	7.55 (0.72)	7.36 (1.27)	8.03 (0.77)	7.93 (0.76)	7.43 (1.13)	7.76 (0.80)
TSES Total	7.88 (0.71)	7.14 (0.10)	7.35 (1.00)	7.37 (0.65)	7.19 (1.10)	7.84 (0.88)	7.65 (0.71)	7.17 (1.04)	7.52 (0.96)

Note: Group One is Categorical Certification, Group Two is Generalist Certification, and Group Three is Mild/Moderate or Severe

Table 8

Descriptives for Research Question 3

	Similar	Not Similar	Total
	n = 37	n = 22	n = 59
TSES Student Engagement	6.84 (1.19)	6.81 (1.19)	6.83 (1.18)
TSES Instruction	7.51 (1.02)	7.32 (1.07)	7.44 (1.04)
TSES Management	7.71 (0.90)	7.49 (1.07)	7.63 (0.96)
TSES Total	7.35 (0.96)	7.21 (1.03)	7.10 (0.98)

CHAPTER 5

FINDINGS, DISCUSSION, RECOMMENDATIONS, AND CONCLUSIONS

The purpose of this study was to understand how differences in teacher certification style relate to self-efficacy of new special education teachers. Historically, children with disabilities did not attend public schools, so for many years there were no licensure requirements or programs to prepare teachers to teach children with disabilities (Brownell et al., 2010). Over time this shifted and resulted in the need for teacher preparation programs and, later, special education teacher certification. Three main types of special education certification styles exist in the United States today: generalist, mild/moderate-severe/profound, and categorical (Education Commission of the States, 2004). This quantitative correlational study examined the association between special education teacher certification and teacher self-efficacy in a nationwide sample of special education teachers. The theoretical framework guiding the study was self-efficacy theory. Bandura's (1997) self-efficacy theory suggested teachers who have a stronger sense of efficacy believe that they can influence, change, or control student achievement (as cited in Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998), which is why it is important to examine whether differences in certification styles relate to differences in teacher self-efficacy.

Findings

Discussion of Results for Research Question 1

Research Question 1 examined the relationship between self-efficacy and new teachers in a self-contained special education classroom. Assuming a majority of the students who receive their educational support and services within a self-contained special education classroom have more significant needs than students in other settings, teachers may require specialized instruction in the areas of teaching alternative curricula and implementing classroom management practices. Previous research in this area suggested new teachers' perceptions of preparedness for the field of special education focused on "knowing what to teach" and "classroom management" as the two most difficult components of teaching students with disabilities (Casey et al., 2011). Based on Casey and colleagues' work, one hypotheses for this study was new special education teachers would have lower levels of self-efficacy when teaching in self-contained classrooms compared to colleagues of the same experience level who teach students with less significant disabilities in other settings. This hypothesis was unsupported. Data suggested there was not a significant difference in self-efficacy ratings among novice teachers who teach in self-contained classrooms when compared to other settings.

In contrast to Casey and colleagues' (2011) work, this study included not only novice teachers but experienced teachers as well. As a follow-up to the initial question and hypothesis, the full sample of 106 teachers was divided into two groups by number of years teaching (i.e., 1-5 and 6+). Again, no significant relationships emerged between years of experience and self-efficacy despite additional years of experience teaching students with more significant disabilities within a self-contained classroom.

Results of this study are somewhat different than what Tschannen-Moran and Hoy (2007) found when they examined differences in self-efficacy beliefs between novice and experienced teachers. They found experienced teachers had higher self-efficacy beliefs than novice teachers in two subscales: instructional strategies and classroom management, whereas this study found no difference. Tschannen-Moran and Hoy found no differences in self-efficacy between novice and experienced teachers for the subscale of student engagement, which is in concert with the findings of this study.

One explanation for the difference in scores between what Tschannen-Moran and Hoy (2007) found when they examined differences in self-efficacy beliefs and this study is their total number of participants was more than double the participants in this study; Tschannen-Moran and Hoy had 255 participants compared to 106 participants and included both special education and general education teachers. Additionally, males made up one-third of the participants in Tschannen-Moran and Hoy's study, while this study only had five males. Finally, another explanation for the difference in results between the two studies is that while Tschannen-Moran and Hoy also divided their sample into two groups, their novice group only included teachers with up to three years of experience, whereas this study included teachers with up to five years of experience. Including an additional two years of teaching experience in the novice group may have contributed to the higher self-efficacy scores.

Discussion of Results for Research Question 2

The second research question examined the relationship between special education teacher certification and self-efficacy. Predictions included: 1) teachers who received disability-specific certification (categorical) would have the highest levels of self-efficacy, 2) teachers who

received generalist certification would have the lowest levels of self-efficacy, and 3) teachers who received mild/moderate and/or severe/profound certification would have moderate levels of self-efficacy when teaching students with moderate to severe disabilities in a self-contained classroom. However, all three predictions were unsupported. Specifically, data suggested there was not a significant difference in levels of self-efficacy related to the three different certification types.

One reason for the unfound differences between certification types can be explained by the variables examined in the available research. Although Conderman and colleagues (2013) found special education teachers ranked their preparation highest in the areas of professionalism, behavior management, instruction, and IEPs, this is in contrast to Casey and colleagues' results from 2011, who found "knowing what to teach" and "classroom management" were the two most difficult components of teaching students with disabilities. Additionally, more than 60% of the participants in Conderman et al.'s study taught in self-contained classrooms and expressed a desire for more coursework in working with students with multiple disabilities as they struggled with differentiating for that population. Finally, qualitative information gleaned from Conderman and colleagues' research noted teachers had a desire for more coursework on working with students with low-incidence disabilities. One participant shared, "Although they are the smallest population of students, they are the most complicated to work with, and I feel I could have benefited from learning more strategies to differentiate for that population" (p. 71).

Additionally, the current study did not ask additional and more specific questions about the coursework, course sequence, or assignments participants completed as part of their preparation programs. Although certified differently, there may be more similarities among program components than was considered as part of this study.

Discussion of Results for Research Question 3

The third research question examined the relationship between having student teaching experience specifically working with students with moderate to severe disabilities in a self-contained classroom and the self-efficacy of new special education teachers with a similar teaching assignment. Buck and colleagues (1992) sought to conclusively identify the length, sequence, and responsibilities pre-service teacher candidates in the field should perform to maximize the experience and become a successful teacher. Buck et al. were unsuccessful, as were Prater and Sileo in 2004, in determining an exact recommendation regarding type, amount, and length of a student teaching placement in special education. However, in 2005, Brownell and colleagues found crafting extensive field experiences to be prevalent and important to many faculty teaching in special education teacher preparation programs. In 2008, Ergenekon and colleagues found student teaching and other practicum opportunities should be extended for a longer amount of time and should align more closely with the first three years of theoretical training to demonstrate the correlation between theory and practice.

A clear recommendation for student teaching requirements did not emerge from a review of literature. Therefore, a different approach was taken in this study by considering its similarity to the teacher's current teaching placement and its association with self-efficacy. Accepting Bandura's (1997) theory that mastery experiences can be the strongest influence on self-efficacy development, one prediction for this study was that teachers who experienced a student teaching placement specifically working with students with moderate to severe disabilities in a self-contained classroom would have higher levels of self-efficacy than those who did not have that student teaching experience but currently teach in a self-contained classroom. Despite the

hypothesis that a positive student teaching experience similar to one's current teaching assignment would reflect higher rates of mastery experiences and, therefore, higher rates of self-efficacy, the results of the current study did not demonstrate an association between the two variables. These results are in concert with qualitative information found in Conderman and colleagues' (2013) research. In their study, one participant noted, "I was able to work with a variety of populations, and I feel that I could work any job in special education and feel confident" (p. 70).

Interpretation

This study offers additional insight into and contributes to available literature on teacher self-efficacy, especially related to preparation of special education teachers. Previous researchers investigated the correlation between teacher efficacy and school-based variables such as access to supplies, building leadership, and the collective efficacy of the school community. Additionally, previous researchers investigated the relationships among self-efficacy and other variables such as mastery experiences and verbal persuasion from an administrator. In contrast to this study, previous studies compared novice teachers to more experienced teachers and found the stage of one's career made a difference in self-efficacy beliefs, with more experienced teachers having higher efficacy beliefs, greater satisfaction with performance, and significantly higher levels of teaching resources and support from administrators (Tschannen-Moran & Hoy, 2007).

The main focus for this study was not the question of age or experience, but rather whether different teacher certification models adopted by states influenced self-efficacy in novice teachers. That could not be confirmed through the analyses. Instead, results of this study

suggest states can use different teacher certification models and still produce teachers with high levels of self-efficacy. One explanation for this may be accrediting bodies require all universities to meet certain standards when preparing educators for the field. The Council for the Accreditation of Educator Preparation (CAEP) is the sole accrediting body for educator preparation, and its leaders have set standards to ensure consistency among educator programs (http://www.caepnet.org). Examples of standards include ensuring high-quality providers teach classes, courses include various content and pedagogical knowledge, and clinical practice is available. Again faculty at various universities vary in their programming to meet these standards; however, accreditation requirements create a strong basis for all preparation programs, which may contribute to less significant differences found within the data analyses of this study.

Strengths and Limitations

Strengths

Several strengths exist in this study. One strength of this study is the sample size was large enough to run analyses for multiple variables simultaneously. Another strength of this study is that it included teachers with various levels of experience and represented all three certificate types originally published in the 2004 publication by the Education Commission of the States. Additionally, all 106 participants were from states that have not changed their special education teacher certification style much since 2004, meaning if they were categorized as a state that certifies teachers in a generalist format, for example, they continue to do so presently in 2018. Finally, the change in recruitment procedures increased the sample size of this study and

offered future researchers additional information regarding the use of social media for recruitment purposes.

Limitations

Several limitations exist in this study. The first limitation is that while the sample size of 106 participants allowed multiple analyses to be conducted, it does not account for the total number of new special education teachers certified nationwide in the last five years. Other limitations include only five males participated in the study and some questions relied on the memory of participants.

Additionally, the survey was dispersed using social media that allowed any interested special education teacher to participate. However, one limitation, as suggested by Tschannen-Moran and Hoy in their 2007 study is perhaps only the most committed or engaged teachers participated in the survey which could skew the data positively. Moreover, qualitative information about trainings, availability of resources, the quality of cooperating teachers, and administrative support post-graduation was not elicited or controlled for within this study.

Finally, although multiple states may be categorized as certifying teachers in a specific way (i.e., categorical, generalist, or mild/moderate, for example), universities may still differ considerably, which was not reflected in this study, as it did not account for differences in the number of credit hours, the number of pre-service teaching experiences, course sequence, or the types of assignments required. As previously noted, all universities must be accredited for educator preparation through CAEP; however, faculty at various universities vary in their programming to meet these standards and perhaps there could be valuable information found within those differences if studied further.

Future Direction for Researchers

Available research does not clearly identify pre-service teacher preparation program components that consistently and directly relate to higher levels of self-efficacy. Future researchers should explicitly study special education teacher certification program components for further insight into how they prepare new teachers for the field. Future researchers may want to consider how many courses pre-service teachers take that are tailored to working with students with more significant disabilities. For example, how does taking a higher number of courses explicitly teaching classroom management, assistive technology, and augmentative or alternative communication increase self-efficacy of special education teachers working in self-contained classrooms? Additionally, gathering more information regarding the quality of student teaching experiences through teacher interviews may demonstrate what components of student teaching placements best prepare future teachers regardless of teaching assignment.

In a study by Tschannen-Moran and Hoy (2007), novice teachers reported the amount of support they received in their teaching position was related to their efficacy beliefs. In that study, the support of administrators, colleagues, parents, and the community appeared to be a greater source for higher self-efficacy beliefs for a novice teacher when compared to a veteran teacher. Therefore, future researchers may want to further investigate the impact of systemic administrative and coaching support from the building principal, special education director, specialists, instructional coaches, and the teaching team as it relates to self-efficacy of novice teachers. For example, to what extent does the support from an onsite administrator or coach knowledgeable in special education programming have on the self-efficacy of special education teachers working in self-contained classrooms?

Finally, future researchers should study the reasons why special education teachers leave the profession. Interviewing novice special education teachers exiting the field can provide information to improve teacher preparation and initial teaching placements. This information could help tailor preparation coursework, improve mentoring programs, and influence professional development offerings for new special education teachers in the field.

Concluding Remarks

I began this study because students with disabilities deserve the finest educators we can provide, and I wanted to identify the optimal way to prepare special education teachers for the position. I also want new special education teachers to feel more confident in their practice, believe they can make a difference, and remain in the profession longer with sustained success. Because one variable can influence another, I was hoping to find one variable within teacher certification styles that would support a positive outcome for both students and teachers. However, this study demonstrates certification style does not substantially contribute to differences in self-efficacy of novice teachers. Although this study expanded the overall body of mixed research on teacher self-efficacy, it also confirms its continuation, originally coined by Tschannen-Moran and Woolfolk Hoy (2001), as an elusive construct.

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APPENDIX A

STUDY INSTRUMENT

I am a current special education teacher
- o Yes (1)
- o No (2)

Total number of years teaching

- o >1 (1)
- o (2)
- o (3)
- o (4)
- o (5)
- o (6)
- o 6-10 (7)
- o 10-15 (8)
- o 15-20 (9)
- o 20+ (10)

Could your teaching position be described as teaching a self-contained special education classroom for students with moderate to severe disabilities?
(Students may or may not be included in the general education setting for part of their day)
- o Yes (1)
- o No (2)

Gender
- o Male (1)
- o Female (2)
- o Gender nonconforming (3)
- o Prefer not to disclose (4)

Current Age _____

Age when initially certified in special education _____

Highest level of education
- o Bachelor's degree (1)
- o Bachelor's degree +15 credit hours (2)
- o Bachelor's degree +30 credit hours (3)
- o Master's degree (4)
- o Master's degree +15 credit hours (5)
- o Master's degree = 30 credit hours (6)
- o Doctorate degree (7)

Earned initial special education teaching certification through:

- o Bachelor's degree (1)
- o Master's degree (2)
- o Other (i.e., endorsement, alternative track, etc.) (3)

_____

Completed initial special education teacher preparation program at the following college/university: _____

Initially certified to teach special education in the following year: _____

Initially certified to teach special education in the following state: _____

Currently teach special education in the following state: _____

Which of the following best describes your initial special education preparation/certification type? You may only choose one answer---please read thoroughly before responding.

- o Generalist Certification: Allows special education teachers to teach most children with disabilities under one single certificate. A small number of disabilities may still require specialized certification (i.e. teaching students who are deaf or blind), but the generalist certification covers most others including teaching students with mild, moderate, and severe intellectual abilities, autism, physical impairments, and emotional disabilities. (1)

- o Categorical Certification: Teachers receive disability-specific training and become certified to teach specific disabilities. In order to teach a child with a specific disability, the teacher must have the disability added to their license/certificate. (2)

- o Mild/Moderate and/or Severe/Profound Certification: Provides special education teachers training to teach students within two general groups: a mild/moderate disability group and a severe/profound disability group. In this model, a candidate would need to be endorsed in a general "mild/moderate" category AND a general "severe/profound" category if they wish to teach all students with disabilities in a school setting. (3)

- o Other/I do not know (Please describe your certification/program type below) (4)

_____

How many of your student teaching placements did you have?

- o (1)
- o (2)
- o (3)
- o (4)
- o I did not student teach (5)

Did any of your student teaching experiences include teaching students with moderate to severe disabilities in a self-contained special education classroom?

- o Yes (1)
- o No (2)

1ST STUDENT TEACHING PLACEMENT:
Length of placement (i.e. 8 weeks, 16 weeks, 1 school year): _____

1ST STUDENT TEACHING PLACEMENT: What grade level did you teach?

- o Early Childhood Level (3-5 years old) (1)
- o Childhood Level (3-5 years old) (1)
- o Elementary Level (K-5th grade) (2)
- o Middle School Level (6-8th grade) (3)
- o High School Level (9-12th grade) (4)
- o Transition Level (18-21 years old) (5)
- o Other (please describe) (11) _____

1ST STUDENT TEACHING PLACEMENT: Students were eligible for special education services under the following eligibility(s) (you may select more than one)

- o Autism (1)
- o Deaf/blindness (2)
- o Deafness (3)
- o Developmental Delay (ages 3-9 only) (4)
- o Emotional Disturbance/Disability (5)
- o Hearing Impairment (6)
- o Mental Retardation/Cognitive Impairment/Intellectual Disability (7)
- o Multiple Disabilities (8)
- o Orthopedic Impairment (9)
- o Other Health Impairment (10)
- o Specific Learning Disability (11)
- o Speech or Language Impairment (12)
- o Traumatic Brain Injury (13)
- o Visual Impairment (14)

1ST STUDENT TEACHING PLACEMENT: How similar was this student teaching placement to your current special education teaching placement?

- o Not at all 1 (1)
- o 2 (2)
- o Very Little 3 (3)
- o 4 (4)
- o Somewhat 5 (5)
- o 6 (6)
- o Quite a Bit 7 (7)
- o 8 (8)
- o Very 9 (9)

1ST STUDENT TEACHING PLACEMENT:
How well did this placement prepare you for your current teaching position?

- o Not at all 1 (1)
- o 2 (2)
- o Very Little 3 (3)
- o 4 (4)
- o Somewhat 5 (5)
- o 6 (6)
- o Quite a Bit 7 (7)
- o 8 (8)
- o Very 9 (9)

2ND STUDENT TEACHING PLACEMENT:
Length of placement (i.e. 8 weeks, 16 weeks, 1 school year): _____

- o 2ND STUDENT TEACHING PLACEMENT:
  What grade level did you teach?
- o Early Childhood Level (3-5 years old) (1)
- o Elementary Level (K-5th grade) (2)
- o Middle School Level (6-8th grade) (3)
- o High School Level (9-12th grade) (4)
- o Transition Level (18-21 years old) (5)
- o Other (please describe) (11) _____

2ND STUDENT TEACHING PLACEMENT: Students were eligible for special education services under the following eligibility(s). (you may select more than one)

- o Autism (1)
- o Deaf/blindness (2)
- o Deafness (3)
- o Developmental Delay (ages 3-9 only) (4)
- o Emotional Disturbance/Disability (5)
- o Hearing Impairment (6)
- o Mental Retardation/Cognitive Impairment/Intellectual Disability (7)
- o Multiple Disabilities (8)
- o Orthopedic Impairment (9)
- o Other Health Impairment (10)
- o Specific Learning Disability (11)
- o Speech or Language Impairment (12)
- o Traumatic Brain Injury (13)
- o Visual Impairment (14)

2ND STUDENT TEACHING PLACEMENT:
How similar was this student teaching placement to your current special education teaching placement?

- o Not at all 1 (1)
- o 2 (2)
- o Very Little 3 (3)
- o 4 (4)
- o Somewhat 5 (5)
- o 6 (6)
- o Quite a Bit 7 (7)
- o 8 (8)
- o Very 9 (9)

2ND STUDENT TEACHING PLACEMENT:
How well did this placement prepared you for your current teaching placement?

- o Not at all 1 (1)
- o 2 (2)
- o Very Little 3 (3)
- o 4 (4)
- o Somewhat 5 (5)
- o 6 (6)
- o Quite a Bit 7 (7)
- o 8 (8)
- o Very 9 (9)

3RD STUDENT TEACHING PLACEMENT:
Length of placement (i.e. 8 weeks, 16 weeks, 1 school year): _____

3RD STUDENT TEACHING PLACEMENT:
What grade level did you teach?

- o Early Childhood Level (3-5 years old) (1)
- o Elementary Level (K-5th grade) (2)
- o Middle School Level (6-8th grade) (3)
- o High School Level (9-12th grade) (4)
- o Transition Level (18-21 years old) (5)
- o Other (please describe) (11) _____

3RD STUDENT TEACHING PLACEMENT:
Students were eligible for special education services under the following eligibility(s). (you may select more than one)

- o Autism (1)
- o Deaf/blindness (2)
- o Deafness (3)
- o Developmental Delay (ages 3-9 only) (4)
- o Emotional Disturbance/Disability (5)
- o Hearing Impairment (6)
- o Mental Retardation/Cognitive Impairment/Intellectual Disability (7)
- o Multiple Disabilities (8)
- o Orthopedic Impairment (9)
- o Other Health Impairment (10)
- o Specific Learning Disability (11)
- o Speech or Language Impairment (12)
- o Traumatic Brain Injury (13)
- o Visual Impairment (14)

3RD STUDENT TEACHING PLACEMENT:
How similar was this student teaching placement to your current special education teaching placement?

- o Not at all 1 (1)
- o 2 (2)
- o Very Little 3 (3)
- o 4 (4)
- o Somewhat 5 (5)
- o 6 (6)
- o Quite a Bit 7 (7)
- o 8 (8)
- o Very 9 (9)

3RD STUDENT TEACHING PLACEMENT:
How well did this placement prepare you for your current teaching placement?

- o Not at all 1 (1)
- o 2 (2)
- o Very Little 3 (3)
- o 4 (4)
- o Somewhat 5 (5)
- o 6 (6)
- o Quite a Bit 7 (7)
- o 8 (8)
- o Very 9 (9)

4TH STUDENT TEACHING PLACEMENT:
Length of placement (i.e. 8 weeks, 16 weeks, 1 school year): _____

4TH STUDENT TEACHING PLACEMENT: What grade level did you teach?

- o Early Childhood Level (3-5 years old) (1)
- o Elementary Level (K-5th grade) (2)
- o Middle School Level (6-8th grade) (3)
- o High School Level (9-12th grade) (4)
- o Transition Level (18-21 years old) (5)
- o Other (please describe) (11) _____

4TH STUDENT TEACHING PLACEMENT: Students were eligible for special education services under the following eligibility(s). (you may select more than one)

- o Autism (1)
- o Deaf/blindness (2)
- o Deafness (3)
- o Developmental Delay (ages 3-9 only) (4)
- o Emotional Disturbance/Disability (5)
- o Hearing Impairment (6)
- o Mental Retardation/Cognitive Impairment/Intellectual Disability (7)
- o Multiple Disabilities (8)
- o Orthopedic Impairment (9)
- o Other Health Impairment (10)
- o Specific Learning Disability (11)
- o Speech or Language Impairment (12)
- o Traumatic Brain Injury (13)
- o Visual Impairment (14)

4TH STUDENT TEACHING PLACEMENT: How similar was this student teaching placement to your current special education teaching placement?

- Not at all 1 (1)
- 2 (2)
- Very Little 3 (3)
- 4 (4)
- Somewhat 5 (5)
- 6 (6)
- Quite a Bit 7 (7)
- 8 (8)
- Very 9 (9)

4TH STUDENT TEACHING PLACEMENT:
How well did this placement prepare you for your current teaching placement?

- Not at all 1 (1)
- 2 (2)
- Very Little 3 (3)
- 4 (4)
- Somewhat 5 (5)
- 6 (6)
- Quite a Bit 7 (7)
- 8 (8)
- Very 9 (9)

Overall, how well did your student teaching placement(s) prepare you for your current teaching position?

- Not at all 1 (1)
- 2 (2)
- Very Little 3 (3)
- 4 (4)
- Somewhat 5 (5)
- 6 (6)
- Quite a Bit 7 (7)
- 8 (8)
- Very 9 (9)

What grade level do you currently teach? (you may select more than one if you are split between levels)

- Special education at the Early Childhood Level (3-5 years old) (1)
- Special education at the Elementary Level (K-5th Grade) (2)
- Special education at the Middle School Level (6-8th grade) (3)
- Special education at the High School Level (9-12th grade) (4)
- Special education at the Transition Level (18-21 years old) (5)
- Other (please describe) (11) _____

Students on your current caseload are eligible for special education services under the following eligibility(s) (you may select more than one):

- o Autism (1)
- o Deaf/blindness (2)
- o Deafness (3)
- o Developmental Delay (ages 3-9 only) (4)
- o Emotional Disturbance/Disability (5)
- o Hearing Impairment (6)
- o Mental Retardation/Cognitive Impairment/Intellectual Disability (7)
- o Multiple Disabilities (8)
- o Orthopedic Impairment (9)
- o Other Health Impairment (10)
- o Specific Learning Disability (11)
- o Speech or Language Impairment (12)
- o Traumatic Brain Injury (13)
- o Visual Impairment (14)

Did you participate in a formal mentoring program as a new teacher?

- o Yes (1)
- o No (2)

Rate the quality of the mentoring program as it relates to your current position:

- o Not at all helpful 1 (1)
- o 2 (2)
- o Slightly helpful (3)
- o 4 (4)
- o Somewhat helpful 5 (5)
- o 6 (6)
- o Very helpful 7 (7)
- o 8 (8)
- o Extremely helpful 9 (9)

End of Block: Demographic Questions

Start of Block: Teacher Beliefs

How much can you do to get through to the most difficult students?

- o None at all 1 (1)
- o 2 (2)
- o Very Little 3 (3)
- o 4 (4)
- o Some Degree 5 (5)
- o 6 (6)

- Quite a Bit 7 (7)
- 8 (8)
- A Great Deal 9 (9)

How much can you do to help your students think critically?

- None at all 1 (1)
- 2 (2)
- Very Little 3 (3)
- 4 (4)
- Some Degree 5 (5)
- 6 (6)
- Quite a Bit 7 (7)
- 8 (8)
- A Great Deal 9 (9)

How much can you do to control disruptive behavior in the classroom?

- None at all 1 (1)
- 2 (2)
- Very Little 3 (3)
- 4 (4)
- Some Degree 5 (5)
- 6 (6)
- Quite a Bit 7 (7)
- 8 (8)
- A Great Deal 9 (9)

How much can you do to motivate students who show low interest in school work?

- None at all 1 (1)
- 2 (2)
- Very Little 3 (3)
- 4 (4)
- Some Degree 5 (5)
- 6 (6)
- Quite a Bit 7 (7)
- 8 (8)
- A Great Deal 9 (9)

To what extent can you make your expectations clear about student behavior?

- None at all 1 (1)
- 2 (2)
- Very Little 3 (3)
- 4 (4)
- Some Degree 5 (5)
- 6 (6)
- Quite a Bit 7 (7)
- 8 (8)

- A Great Deal 9 (9)

How much can you do to get students to believe they can do well in school work?

- None at all 1 (1)
- 2 (2)
- Very Little 3 (3)
- 4 (4)
- Some Degree 5 (5)
- 6 (6)
- Quite a Bit 7 (7)
- 8 (8)
- A Great Deal 9 (9)

How well can you respond to difficult questions from your students?

- None at all 1 (1)
- 2 (2)
- Very Little 3 (3)
- 4 (4)
- Some Degree 5 (5)
- 6 (6)
- Quite a Bit 7 (7)
- 8 (8)
- A Great Deal 9 (9)

How well can you establish routines to keep activities running smoothly?

- None at all 1 (1)
- 2 (2)
- Very Little 3 (3)
- 4 (4)
- Some Degree 5 (5)
- 6 (6)
- Quite a Bit 7 (7)
- 8 (8)
- A Great Deal 9 (9)

How much can you do to help your students value learning?

- None at all 1 (1)
- 2 (2)
- Very Little 3 (3)
- 4 (4)
- Some Degree 5 (5)
- 6 (6)
- Quite a Bit 7 (7)
- 8 (8)
- A Great Deal 9 (9)

How much can you gauge student comprehension of what you have taught?

- None at all 1 (1)
- 2 (2)
- Very Little 3 (3)
- 4 (4)
- Some Degree 5 (5)
- 6 (6)
- Quite a Bit 7 (7)
- 8 (8)
- A Great Deal 9 (9)

To what extent can you craft good questions for your students?

- None at all 1 (1)
- 2 (2)
- Very Little 3 (3)
- 4 (4)
- Some Degree 5 (5)
- 6 (6)
- Quite a Bit 7 (7)
- 8 (8)
- A Great Deal 9 (9)

How much can you do to foster creativity?

- None at all 1 (1)
- 2 (2)
- Very Little 3 (3)
- 4 (4)
- Some Degree 5 (5)
- 6 (6)
- Quite a Bit 7 (7)
- 8 (8)
- A Great Deal 9 (9)

How much can you do to get children to follow classroom rules?

- None at all 1 (1)
- 2 (2)
- Very Little 3 (3)
- 4 (4)
- Some Degree 5 (5)
- 6 (6)
- Quite a Bit 7 (7)
- 8 (8)
- A Great Deal 9 (9)

How much can you do to improve the understanding of a student who is failing?

- o None at all 1 (1)
- o 2 (2)
- o Very Little 3 (3)
- o 4 (4)
- o Some Degree 5 (5)
- o 6 (6)
- o Quite a Bit 7 (7)
- o 8 (8)
- o A Great Deal 9 (9)

How much can you do to calm a student who is disruptive or noisy?

- o None at all 1 (1)
- o 2 (2)
- o Very Little 3 (3)
- o 4 (4)
- o Some Degree 5 (5)
- o 6 (6)
- o Quite a Bit 7 (7)
- o 8 (8)
- o A Great Deal 9 (9)

How well can you establish a classroom management system with each group of students?

- o None at all 1 (1)
- o 2 (2)
- o Very Little 3 (3)
- o 4 (4)
- o Some Degree 5 (5)
- o 6 (6)
- o Quite a Bit 7 (7)
- o 8 (8)
- o A Great Deal 9 (9)

How much can you do to adjust your lessons to the proper level for individual students?

- o None at all 1 (1)
- o 2 (2)
- o Very Little 3 (3)
- o 4 (4)
- o Some Degree 5 (5)
- o 6 (6)
- o Quite a Bit 7 (7)
- o 8 (8)
- o A Great Deal 9 (9)

How much can you use a variety of assessment strategies?

- None at all 1 (1)
- 2 (2)
- Very Little 3 (3)
- 4 (4)
- Some Degree 5 (5)
- 6 (6)
- Quite a Bit 7 (7)
- 8 (8)
- A Great Deal 9 (9)

How well can you keep a few problem students from ruining an entire lesson?

- None at all 1 (1)
- 2 (2)
- Very Little 3 (3)
- 4 (4)
- Some Degree 5 (5)
- 6 (6)
- Quite a Bit 7 (7)
- 8 (8)
- A Great Deal 9 (9)

To what extent can you provide an alternative explanation or example when students are confused?

- None at all 1 (1)
- 2 (2)
- Very Little 3 (3)
- 4 (4)
- Some Degree 5 (5)
- 6 (6)
- Quite a Bit 7 (7)
- 8 (8)
- A Great Deal 9 (9)

How well can you respond to defiant students?

- None at all 1 (1)
- 2 (2)
- Very Little 3 (3)
- 4 (4)
- Some Degree 5 (5)
- 6 (6)
- Quite a Bit 7 (7)
- 8 (8)
- A Great Deal 9 (9)

How much can you assist families in helping their children do well in school?

- o None at all 1 (1)
- o 2 (2)
- o Very Little 3 (3)
- o 4 (4)
- o Some Degree 5 (5)
- o 6 (6)
- o Quite a Bit 7 (7)
- o 8 (8)
- o A Great Deal 9 (9)

How well can you implement alternative strategies in your classroom?

- o None at all 1 (1)
- o 2 (2)
- o Very Little 3 (3)
- o 4 (4)
- o Some Degree 5 (5)
- o 6 (6)
- o Quite a Bit 7 (7)
- o 8 (8)
- o A Great Deal 9 (9)

How well can you provide appropriate challenges for very capable students?

- o None at all 1 (1)
- o 2 (2)
- o Very Little 3 (3)
- o 4 (4)
- o Some Degree 5 (5)
- o 6 (6)
- o Quite a Bit 7 (7)
- o 8 (8)
- o A Great Deal 9 (9)

APPENDIX B

PERMISSION TO USE THE TEACHER SENSE OF EFFICACY SCALE

THE OHIO STATE UNIVERSITY COLLEGE OF EDUCATION AND HUMAN ECOLOGY

ANITA WOOLFOLK HOY, PH.D.

PROFESSOR
PSYCHOLOGICAL STUDIES IN EDUCATION

Dear

You have my permission to use the *Teachers' Sense of Efficacy Scale* in your research. A copy the scoring instructions can be found at:

http://u.osu.edu/hoy.17/research/instruments/

Best wishes in your work,

Anita Woolfolk Hoy

Anita Woolfolk Hoy, Ph.D.
Professor Emeritus

APPENDIX C

INVITATION TO PARTICIPATE IN STUDY

Dear District Superintendent and Director of Special Education, or other administrator:

My name is Mary Davis. I currently serve as the Assistant Director for Student Services at Community Unit School District 200 in Wheaton, Illinois. I am also a doctoral student in the Educational Administration program at Northern Illinois University. I am writing to request you invite your special education teachers to participate in my dissertation study about teacher preparation and self- efficacy.

Special education teacher preparation and certification varies across the country. The purpose of this study is to examine if differences in special education teacher preparation programs influence novice teachers' self-efficacy when teaching students with moderate to severe disabilities. Additionally, this study will take into consideration the impact of demographic variables on that relationship, including age, gender, years of experience, and teaching assignment. This study will increase the scholarly knowledge base and provide insight for those responsible for preparation, certification, and professional development of special education teachers.

Participation in this study is voluntary and will require participants to complete an on-line survey consisting of one measure: Teachers' Sense of Efficacy Scale (TSES; Tschannen-Moran & Woolfolk Hoy; 2001) and answer some basic demographic questions. The survey should take approximately 10-20 minutes to complete.

Data for this study will be anonymously collected. Participants will not be required to provide their name or their school name. Settings on this survey are also such that IP addresses will not be collected. Data will be stored confidentially.

Please forward this entire email to staff if you support their participation

If you have any additional questions concerning this study, please contact the co-chairs of this dissertation research; Dr. Gregory Conderman, Professor at Northern Illinois University in the Department of Special and Early Education at [redacted] and Dr. Toni Van Laarhoven, Professor at Northern Illinois University in the Department of Special and Early Education at [redacted]. I can also be reached at [redacted].

Additionally, please understand that if you wish for further information regarding your rights as a research subject, you may contact the Office of Research Compliance at Northern Illinois University at 815-753-8588.

Thank you very much for your assistance with my study.

Respectfully,
Mary Davis
Doctoral Student
Northern Illinois University

APPENDIX D

PARTICIPANT CONSENT FORM

You are invited to complete survey questions for research about special education teacher preparation and self-efficacy being conducted by Mary Davis, doctoral student at Northern Illinois University. The purpose of this study is to examine if differences in special education teacher preparation programs influence novice teachers' self-efficacy when teaching students with moderate to severe disabilities. If you agree to participate in this study, you will be asked to complete an on-line survey that will take approximately 10-15 minutes to complete.

All information gathered during this study is anonymous. The information gathered will be used for the purposes of completing a doctoral dissertation and may be presented in the future at scientific meetings or published in scientific journals. No school participant or school district names will be collected.

If you choose to participate, please know participation is voluntary and may be withdrawn at any time without penalty or prejudice. If you have any additional questions concerning this study, contact the co-chairs of this dissertation research, Dr. Gregory Conderman, Professor at Northern Illinois University in the Department of Special and Early Education at [redacted] and Dr. Toni Van Laarhoven, Professor at Northern Illinois University in the Department of Special and Early Education at [redacted].

If you would like further information regarding your rights as a research participant, contact the Office of Research Compliance at Northern Illinois University at (815) 753-8588.

If I choose to participate:

I understand that the intended benefits of this study include increasing the body of scholarly work and understanding in the area of special education teacher preparation.

I have been informed that potential risks and/or discomforts you could experience during this study are minimal. My anonymous responses will be closely managed by the researcher.

I understand that my consent to participate in this project does not constitute a waiver of any legal rights or redress I might have as a result of my participation, and I acknowledge that you have received a copy of this consent form. (Please print this page if you would like a hard copy).

Thank you,
Mary Davis
Doctoral Student
Northern Illinois University
[redacted]

APPENDIX E

REMINDER INVITATION TO PARTICIPATE IN STUDY

Dear District Superintendent and Director of Special Education, or other administrator:

Last week you received an e-mail from me requesting you forward my e-mail to your special education teachers, so they may voluntarily participate in my doctoral study examining teacher preparation and self-efficacy. Knowing the many demands on your time, I greatly appreciate your help in helping me accomplish this personal and professional goal and contributing back to our profession.

As a reminder, special education teachers can participate in this survey through voluntary completion of an online survey. This survey will take 10-15 minutes to complete. As also stated earlier, data will be collected anonymously, and participants will not be required to share their name or their school name.

This link will navigate participants to the consent document and the on-line survey: [redacted]

Please forward this entire email to staff if you support their participation

If you have any additional questions concerning this study, please contact co-chairs of this dissertation research; Dr. Gregory Conderman, Professor at Northern Illinois University in the Department of Special and Early Education at [redacted] and Dr. Toni Van Laarhoven, Professor at Northern Illinois University in the Department of Special and Early Education at [redacted]. I can also be reached at [redacted].

Additionally, please understand that if you wish for further information regarding your rights as a research subject, you may contact the Office of Research Compliance at Northern Illinois University at 815-753-8588.

Thank you very much for your assistance with this study.
Respectfully,

Mary Davis
Doctoral Student
Northern Illinois University