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ALTERNATIVE PATHS, UNCONVENTIONAL STRENGTHS: THE INFLUENCE OF SELF-EFFICACY ON RETENTION RATES AMONG K-12 SPECIAL EDUCATORS IN THE STATE OF OKLAHOMA

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ALTERNATIVE PATHS, UNCONVENTIONAL STRENGTHS: THE INFLUENCE OF SELF-EFFICACY ON RETENTION RATES AMONG K-12 SPECIAL EDUCATORS IN THE STATE OF OKLAHOMA

A DISSERTATION APPROVED FOR THE
DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

BY THE COMMITTEE CONSISTING OF

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For Jacson and Hayes.

Everything I do in this world is for you.

Love you, always.



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ABSTRACT

The purpose of this study was to evaluate the role that certification pathway may have on the retention and attrition rates in the field of education in regard to classroom teachers. Teacher shortages are continuing to be problematic in the field of special education and with the amount of alternative certification options increasing, this study looked at whether this phenomenon is being affected by the certification pathway of special educators. A survey design was created to and dispersed to special education teachers in the state of Oklahoma. A sequential mediation model was performed with self-efficacy and burnout as the mediators. The survey design yielded 191 participants. Results showed that certification pathway is not a statistically significant indicator on the intention to leave the field. Burnout was statistically significant to self-efficacy and job satisfaction. Future research should examine the self-efficacy and burnout with more attention paid to specific domains within each area.

Keywords

Certification pathway, burnout, self-efficacy, job satisfaction, retention, attrition

CHAPTER 1: INTRODUCTION

The Individuals with Disabilities Education Act (IDEA), 20 USC 1400-1482, guarantees students with disabilities (SWD) a free, adequate public education (FAPE) in the least restrictive environment (LRE). This comprehensive piece of law has served as a framework and protection for SWD since 1974, while going through a few name changes along the way. The Individuals with Disabilities Education Improvement Act (IDEA) requires states to demonstrate to the federal government, specifically the United States Department of Education, that they have clear intentions and procedures in place to implement an appropriate education for SWD in exchange for federal funding.

IDEA is a cornerstone of special education in the United States, providing critical safeguards and requirements for SWD. However, the interpretation and application of these requirements may differ, necessitating the presence of competent special educators to ensure that SWD receive the education they deserve in the most inclusive setting possible (Hott et al., 2019; Kauffman et al., 2022). Overall, the Individuals with Disabilities Education Improvement Act creates a legal framework and safeguards for students with disabilities, ensuring equal educational opportunities and support for achievement. Special education teachers must have a thorough understanding of FAPE, LRE, and related services in order to implement these concepts effectively and advocate for their students' needs. Finally, special educators are responsible for ensuring that SWD receive the required education and support to thrive. This helps to avoid costly legal battles that can result from misconceptions or misapplications of the law.

The notion of FAPE emphasizes that SWD must get an education that is adapted to their specific needs and comparable to that of students without disabilities (Hott et al., 2019; IDEA,

2004; Kauffman et al., 2022). This highlights the need of providing equitable educational opportunities to every student, regardless of disability. Although laws and procedures have been established to guide states and districts, their interpretation remains debatable. Schools have the freedom to decide what is appropriate for each SWD, as the term is used in a variety of contexts related to academic and nonacademic activities (Yell & Bateman, 2018). Adequate information and training can contribute to success when determining each SWD's educational path (Gesel et al., 2021; Klehm, 2014; Zhang et al., 2013).

The federal government plays a crucial role in addressing the shortage of teachers and special education faculty, which is directly linked to the implementation of appropriate education for SWD (Billingsley & McLeskey, 2004; Mason-Williams et al., 2019; Xin et al., 2016). For years, teacher shortages in the sphere of education have been a persistent and difficult challenge; while there have been various studies and insights into this problem, finding a long-lasting solution has proven to be a complex task, and shortages continue to be a significant concern (Peyton et al., 2020; Stevens & Dial, 1995; Sutcher et al., 2016). So much time and money have been spent attempting to solve the ongoing shortage problem with minimal progress (Billingsley & McLeskey, 2004; NCES, 2021).

The goal of IDEA (2004) was to revise and reauthorize the Individuals with Disabilities Education Act (IDEA) of 1990, emphasizing the importance of clear intentions and processes to support special education programs and services (Yell and Drasgow, 2007). Furthermore, the federal laws for IDEA highlight the significance of setting high expectations for SWD (Ryndak et al., 2008) and providing them with as much access to the general education curriculum as possible Agran et al., 2019; Ryndak et al. 2014). Every effort must be made to include SWD in

the general education setting with appropriate accommodations and modifications to aid their academic success to include limiting educational isolation from their typically developing peers.

Barriers to Retention

Special education teachers play a critical role in supporting SWD, providing the necessary instruction, accommodations, and emotional support to help them succeed in school, in addition to assisting them in planning for their lives after high school. However, special education has consistently needed more qualified educators, leading to several issues within the field (Billingsley & Bettini, 2019; Sutcher et al., 2019). The shortage of fully certified special education teachers has long been a source of worry, with studies revealing a national shortfall of teachers qualified to teach SWD (Ingersoll, 2001; Katsiyannis et al., 2003; NCES, 2021; Steven & Dial, 1993), as the need for special education services and support has continued to increase, so have the worries surrounding this issue (Billingsley & Bettini, 2019; Hagaman & Casey, 2017; Nordness et al., 2022; Sutcher et al., 2016; Sutcher et al., 2019). Several key factors contribute to the ongoing shortage of special education teachers.

High Demand

A variety of factors contribute to the increased demand for special education services, including increased awareness and identification of students with disabilities, integration of SWD into general education settings, and a decrease in the number of special education teachers graduating from personnel preparation programs (Billingsley, 1993; Boe & Cook, 2006; Jameson & McDonnell, 2007; Sapp & Hatlen, 2010). These circumstances have strained the existing pool of special education instructors, resulting in fewer services and a national shortage of teachers qualified to teach SWD (Sutcher et al., 2019). Furthermore, the shortfall has resulted in a reduction in assistance for SWD, leading to a drop in student success (Hagaman & Casey, 2017;

Sundeen & Wienke, 2009). According to a recent analysis by the National Center for Education Statistics (NCES, 2021), the shortage of special educators is a national issue; there were 110,000 open positions for special education teachers in the United States during the 2020-2021 school year, but only 90,000 special educators graduated from personnel preparation programs during the same time period. This shortage has resulted in a ratio of 14 children with disabilities to each special education teacher, which is far higher than the allowed ratio of 10 students per teacher.

While the inclusion of SWD in general education settings has raised demand for special education teachers, some critics believe that it may dilute resources and attention for both students with disabilities and their typically developing peers. They argue that focusing on inclusion may divert resources away from specialized services and treatments that could better meet the unique needs of students with disabilities (Ryndak et al., 2014); however, research has shown that inclusive education can benefit children with disabilities by increasing academic achievement, social integration, and self-esteem (Agran et al., 2019; Jackson et al., 2008).

The integration of SWD into regular school settings is one factor contributing to increased demand for special education services. This integration has increased the demand for teachers to manage the expanding number of special education pupils (Billingsley, 1993). Furthermore, social norms influence the identification of SWD, particularly for high-incidence disabilities, where identification is usually dependent on social norms rather than medical evaluations (Cooc, 2017). Because of a shortage of special education teachers, the number of unqualified teachers working with students with disabilities has increased (Esposito and Lal, 2005; Nordness et al., 2022; Zhang et al., 2013).

High Turnover

Special education teachers often experience higher turnover than general education teachers due to the unique challenges and demands of the job, including managing diverse and complex needs, which can lead to burnout and attrition (Gilmour & Wehby, 2020; Hagaman & Casey, 2017; Nordness et al., 2022). Research has consistently shown that special education, mathematics, and science are typically the fields with the highest turnover rates (Ingersoll, 2001; Xin et al., 2016). Special education teachers have been reported to experience moderate to high levels of burnout due to challenging student behaviors, lack of administrative support, and excessive workload (Sun et al., 2019; Zhang et al., 2017).

Additionally, some studies have shown that the turnover rate for special education teachers is one and a half times that of regular education teachers (Dempsey et al., 2009; Dempsey & Foggett, 2011). The turnover rate in special education is akin to many professions with high demands, and increasing the supply of educators available to replace those who leave the field is seen as a potential solution, but the experience and preparation of the educators recruited has left many with considerable concerns (Carver-Thomas & Darling-Hammond, 2019; Courtade et al., 2010; Lohmann et al., 2019). Additionally, the lack of time to complete planning, assignments and paperwork contributes to the pressure that special education teachers have been identified as contributing factors to their turnover (Landon-Hays et al., 2020; Mustafa et al., 2020).

Lack of Preparation

Certain special educators may experience a sense of inadequacy when it comes to instructing in special education environments. This could be attributed to inadequate training or lack of professional development, leading to educators feeling unprepared to address the diverse

needs of students with disabilities, an assertion substantiated by other researchers (Carver-Thomas & Darling-Hammond, 2019; Friend et al., 2010; Theobald et al., 2021; Zagona et al., 2017). Some have found that the failure to find increased achievement in co-taught classes may have been the result of a lack of training, leading to uneven implementation; similarly others have highlighted the minimal research exploring the preparation of both general and special educators to teach SWD, indicating a lack of readiness to include students with significant disabilities in general education classrooms (Friend et al., 2010; Rivera et al., 2014; Sharma et al., 2018; Xin et al., 2016; Zagona et al., 2017). Others have found that teachers in special education classrooms had low confidence in their knowledge and skills to teach in inclusive education, emphasizing that professional preparedness is essential for teachers to fully address the educational needs of children within an inclusive educational environment (Aldabas, 2020; Fei et al., 2021; Pilipchuk et al., 2021; Sharma et al., 2018). This evidence suggests that there is a need for comprehensive and effective training programs to better prepare educators for teaching in special education settings.

Workload and Constraints

Special education teachers often face heavy workloads and high levels of stress; creating and implementing Individualized Education Programs (IEPs), adapting teaching methods, and providing one-on-one support can be mentally and emotionally taxing (Gilmour & Wehby, 2020). Schools and districts may need more resources, including funding and personnel, to support special education programs, without these resources, districts can unwittingly place additional strain on special education teachers. The shortage of special education teachers can have significant consequences for SWD, including reduced access to quality education and

support. It can also increase caseloads for the available teachers, making it even more challenging to provide individualized attention to each student.

Addressing this long-standing issue requires a multi-faceted approach, which may include increasing investment in special education training and professional development, offering financial incentives to attract and retain qualified teachers, and improving the overall support system for special education educators. Moreover, efforts to reduce the administrative burden on special education teachers, increase the availability of support staff, and create a more inclusive and supportive educational environment are essential steps toward finding a sustainable solution to the shortage of special education teachers.

The special education profession has one of the most significant rates of attrition and the lowest rates of recruitment, along with a growth in the number of pupils needing special education services (Billingsley & McLeskey, 2004; Peyton et al., 2020). As a result, researchers are examining the causes of special education teachers leaving their positions and potential strategies for teacher training programs to reduce this risk (Nordness et al., 2022; Reeves et al., 2021). Additionally, state education administrations approve alternative paths for persons to enter the industry without finishing a conventional school for teacher preparation (Devier, 2020). Both routes take a different approach to preparation, which in and of itself impacts the field's attrition rates.

Implications of Inadequate Preparation

IDEA Compliance. IDEA mandates that students with disabilities receive a free appropriate public education (FAPE) in the least restrictive environment (LRE) (Individuals with Disabilities Education Improvement Act, 2004). When special education teachers are not adequately prepared, there is a higher risk of failing to meet the requirements of FAPE and LRE,

potentially resulting in legal action against schools and districts (Kauffman et al., 2022; Yell & Drasgow, 2007).

Civil Rights Violations. Inadequate preparation may lead to students' civil rights violations. Students with disabilities have the right to equal educational opportunities, and if they are denied these rights due to unqualified or underprepared teachers, it can lead to legal challenges (O'Laughlin & Lindle, 2014; Yell & Bateman, 2017).

Due Process Complaints. Parents or guardians of students with disabilities can file due process complaints if they believe their child's rights are violated. Inadequate teacher preparation can contribute to such complaints, leading to legal battles (Masana & Kgothule, 2022; Yell & Bateman, 2018).

Legal Consequences. Inadequate preparation of special education teachers can have significant legal repercussions, especially when it violates IDEA and other related federal and state laws governing the education of students with disabilities (Graham et al., 2022; Sharma et al., 2018).

Attrition Rates and Recruitment

Special education has one of the highest attrition rates among teachers, factors that contribute to this, include the challenges of working with students with diverse and often complex needs (Carver-Thomas & Darling-Hammond, 2019; Theobald et al., 2021). Inadequate preparation exacerbates these challenges, making the profession less attractive for potential educators. Concurrently, the demand for special education services is increasing, driven by better identification of students with disabilities and an emphasis on inclusive education. This growth in students needing special education services places additional strain on an already understaffed profession. Not only do districts have the lofty task of retaining the special educators they

currently have, but they also must find creative ways to attract potential special educators to a position with so much turnover. Researchers are actively studying the reasons for special education teacher attrition, revealing that inadequate training and support is a significant factor; when teachers feel ill-prepared to meet the needs of their students, they are more likely to leave the profession (Carver-Thomas & Darling-Hammond, 2019; Gilmour & Wehby, 2019; Hagaman & Casey, 2017).

Alternative Paths

Some state education administrations have started approving alternative paths for individuals to enter the special education field without completing a traditional teacher preparation program. These alternative routes may include expedited certification programs or options for professionals from related fields to transition into special education. While these alternative paths aim to address the teacher shortage, they often result in individuals with varying levels of preparation entering the field. This diversity in preparation can impact attrition rates as it may lead to disparities in teacher effectiveness and, consequently, student outcomes.

In summary, the inadequate preparation of special education teachers can result in significant consequences, particularly in the quality of education provided to students with disabilities. This issue is not only limited to affecting education but can also have legal implications. It is of utmost importance for special education teachers to be equipped with the right skills and training to serve the diverse and unique needs of their students. The absence of adequate preparation can lead to various legal challenges, such as lawsuits, and complaints filed by parents, and students. To address this issue, there is a need for a comprehensive approach that includes enhancing teacher training programs, providing support for existing special education teachers, and evaluating alternative ways to enter the field.

The improvement of teacher training programs can involve thorough and up-to-date training, including classroom management, curriculum development, and assistive technology. Providing support for existing special education teachers can include mentorship, ongoing professional development, and access to resources and technology. Finally, evaluating alternative ways to enter the field can involve exploring new routes to certification and licensure that can adequately prepare teachers to meet the needs of students with disabilities and comply with relevant laws. Taking these steps will ensure that all teachers are well-prepared to meet the needs of students with disabilities, provide quality education, and comply with the law.

Statement of the Problem

The surge in demand for special education services can be attributed to several factors, such as heightened awareness and identification of students with disabilities, the inclusion of children with disabilities in regular education environments, and a decline in the number of special education teachers graduating from training programs (Zhang et al., 2013; Peyton et al., 2020). The presence of these elements has imposed a heavy load on the current group of special education teachers, leading to a reduction in the availability of services for SWD and a nationwide shortage of teachers who possess the necessary skills to teach all types of disabilities. Consequently, scholars are examining the factors that contribute to the resignation of special education teachers and seeking innovative approaches to reduce this risk.

The nation's special education teacher retention issue is critical. Special educators face unique obstacles within the field of education that require a set of skills that are exclusive to the profession. Researchers continue to study special education teacher persistence factors to understand their decision to stay; self-efficacy in teachers predicts well (Hen & Goroshit, 2013; Tschannen-Moran & Woolfolk Hoy, 2007). Bandura (1997) defined self-efficacy as confidence

in one's ability to complete tasks and achieve goals. Highly self-efficacy special education teachers believe they can regulate behavior and instructional approaches, motivate pupils, use effective methods, and boost learning (Catalano et al., 2019). Confident special education teachers are more likely to persevere and stay dedicated during setbacks.

Purpose of the Study

The purpose of this study is to explore how certification pathway can act as a predictor of a teacher's likelihood to remain in the profession of special education in the state of Oklahoma. This study examined the relationship between the self-efficacy and burnout of special education teachers' and their likelihood to stay in the profession, as measured by their commitment to stay in the field of special education in their respective positions.

Research Questions

Within the study, the following questions were addressed when examining the relationship between self-efficacy and alternatively certified teacher in special education:

1. Does certification pathway impact a special educator's self-efficacy?
2. Does certification pathway impact a special educator's level of burnout?
3. Does certification pathway impact a special educator's likelihood to leave the profession?
4. Is the effect of the certification pathway on the intention to leave mediated by self-efficacy?
5. Is the effect of the certification pathway on the intention to leave mediated by burnout?

Definition of Key Terms

The following are both conceptual and operational definitions of the terminology as they apply to this study:

Students with Disabilities (SWD)

The Individuals with Disabilities Education Act (IDEA) defines a student with a disability as someone who has an intellectual disability, hearing impairment, speech or language impairment, visual impairment, or serious emotional disturbance.

Least Restrictive Environment (LRE)

IDEA defines least restrictive environment as 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.

Free and Appropriate Public Education (FAPE)

IDEA defines FAPE as a customized educational program for a child with a disability that meets their unique requirements, maximizes access to the general curriculum, and delivers educational benefits.

The Individuals with Disabilities Education Improvement Act (IDEA)

The Individuals with Disabilities Education Improvement Act (IDEA) is the law that provides special education services to students aged birth to 18. The goal of IDEA was to revise and reauthorize the Individuals with Disabilities Education Act (IDEA) of 1990, emphasizing the importance of clear intentions and processes to support special education programs and services.

Alternative Certification

Many states have implemented alternative certification programs to address teacher shortages, which provide non-traditionally trained individuals with a pathway to become certified teachers. This approach aims to fill gaps in the teaching workforce.

Emergency Certification

Emergency certification is a procedure that enables individuals to assume teaching roles temporarily or in emergency situations, bypassing the need for a traditional teacher preparation program. This alternative is commonly employed during severe shortages of qualified educators.

Teacher Attrition

Teacher attrition refers to the phenomenon of teachers leaving the profession. This complex issue has multi-faceted causes, affecting various educational settings, including special education. According to Billingsley (2004), attrition in the special education profession might occur due to resignation, professional changes, family obligations, retirement, or other causes.

Traditional Certification

Obtaining a traditional certification in special education involves candidates going through a formal accreditation or licensure process. This process involves the successful completion of a teacher preparation program and gaining practical experience in the field. It also requires passing various exams and assessments, as well as applying for licensure with the state, which includes undergoing a thorough background check at both the state and federal levels.

Teacher Preparation Program

A teacher preparation program is a structured and comprehensive training program that aims to provide aspiring educators with the necessary knowledge, skills, and experiences to excel

as teachers. They usually concentrate on equipping candidates with the necessary skills to teach in the special education setting.

Teacher Retention

Teacher retention refers to one continuing to work in the field as a special education teacher at their respective campus in their respective grade.

Special Education Alternative Certification Programs

In special education, there are specific alternative certification programs designed to fast-track the preparation of teachers. These programs are intended to address the shortage of qualified special education teachers, a problem that is often more pronounced than in general education.

Self-Efficacy

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).

CHAPTER 2: LITERATURE REVIEW

This chapter explores the phenomenon of special education teacher retention and attrition. To explore this phenomenon, I engage with various theoretical frameworks related to teacher retention and attrition. Additionally, special educators perceived self-efficacy and burnout are discussed as possible mediating factors contributing to attrition.

Introduction

School districts across the country are searching for a solution to the attrition problem that plagues most of the country. Researchers are attempting to find a solution, but first there must be a better understanding of what factors encompass the complex problem of attrition. Before finding a way to keep teachers in the field, we must first comprehend why they are leaving. This section will define some factors that researchers have credited to teacher attrition. Rosenberg et al. (2007) revealed that there are 235 alternative certification programs specifically for special education across U.S., a number that surely increased over the years. Each state is attempting to fill their gaps in their own way, each hoping that their solution fills the need in their schools.

Knowledge of these programs' effectiveness can directly impact the way teachers are trained and in turn how prepared they are to educate the students in their classrooms and serve them on their caseloads. The research in this area is not as easily attained as information for the general education setting. This alludes to the idea that more work needs to be done in this area. The more information that is gathered regarding the effectiveness of the routes to alternative education for the area of special education will continue to allow for the improvement of the program. The goal is to place and keep qualified special education teachers in the classroom.

Addressing teacher attrition is a pressing issue for school districts across the United States, and researchers are actively seeking solutions. To effectively tackle the problem, it's crucial to gain a deep understanding of the factors that contribute to teacher attrition, especially in specialized fields like special education. Identifying the factors that lead to teacher attrition is a critical step in addressing the problem. Factors can include high workload, insufficient support, inadequate compensation, challenging classroom environments, and limited professional development opportunities. In special education, these factors are often exacerbated due to the unique demands of working with students with disabilities.

Redding & Smith (2019) conducted a longitudinal study that follows alternatively certified teachers for the first five years of their careers. Their analysis revealed lack of preparedness and lack of support outside of mentorship on occasion as major complaints of teachers who are alternatively certified compared to their traditionally certified teachers who went through a teacher prep curriculum before entering the classroom (Kee, 2011; Redding & Smith, 2019). This should not come as a shock because traditional teachers completed coursework and student teaching to prepare them for the classroom. Research shows that student teaching can increase teacher preparedness before one ever enters the classroom (Bowen et al., 2019; Brown et al., 2014).

Although this is not a fail-proof guarantee that they will be successful, it is a lot more than an alternatively certified teacher is given before they enter the classroom. They are thrown to the wolves, and somehow the rationale lies somewhere between lack of funding and time. Daily tasks such as classroom management become major stressors for teachers in general. Still, alternatively certified teachers have fewer tools in their toolbox upon entering the classroom, which can add an unwanted amount of worry on top of other required teaching duties (Schonfeld

& Feinman, 2012). The study conducted by Redding and Smith in 2019 offers valuable insights into the challenges faced by alternatively certified teachers during the early years of their careers. These teachers typically enter the classroom with less traditional teacher preparation compared to their traditionally certified counterparts, which can result in feelings of unpreparedness and a lack of support.

The path to becoming a teacher can vary widely, with individuals entering the teaching profession through different routes. One common route is for individuals to pursue an undergraduate degree in education, while another is for those who did not major in education to undergo an alternative certification process. These two pathways each have their own set of requirements and standards that prospective teachers must meet before they can enter the classroom. Becoming a teacher involves either pursuing an undergraduate degree in education, meeting university-set quality standards, and passing certification exams, or obtaining an alternative certification by completing the necessary coursework, classroom experience, and certification exams after obtaining a bachelor's degree in a field other than education. The goal of both pathways is to ensure that teachers are well-prepared to educate and inspire the next generation of students.

Teacher Attrition

Attrition in the field of education, especially special education, is not new in the United States (U.S.). Education has experienced a shortage dating back to the late 20th century that has been well documented by academics and professionals alike (Elliott et al., 2010; Redding & Smith, 2016; Schonfeld & Feinman, 2012; Stevens & Dial, 1993). Even with the brightest minds troubleshooting the problem, many states continue to fall short with some educational areas hit harder than others. Over the years, education has experienced a steady shortage, but special

education has experienced even bigger shortages; leaving states across the country finding creative ways to fill the gap (Mason-Williams & Gagnon, 2016; Nagro, 2021; Zhang & Zeller, 2016).

Researchers have tracked the shortage with the hopes to find a solution but there is still a steady flow of teachers leaving the profession with less replacing them; although there have been programs and incentives to help in this area (signing bonus, pay increase, etc.), the shortage remains (Billingsley & Bettini, 2019; Mason-Williams et al., 2019; Skaalvik & Skaalvik, 2021; Sutcher et al., 2019). Teaching colleges have made efforts to recruit new students into education programs with little luck, some literature points to poor teacher preparation as one of many explanations for teacher burnout and attrition (Billingsley & Bettini, 2019; Hagaman & Casey, 2017; Kee, 2011).

The current teacher shortage has forced districts to rely on alternatively and emergency certified teachers to staff their classrooms (Isaacs et al., 2007; Kee, 2011; McVey & Trinidad, 2017), which is in great reliance in many school districts (Elliott et al., 2010; Rosenberg et al., 2007), but the question of what is being done to retain and train these teachers so that all the needs of the students are met still remains. Teachers who did not complete a teacher preparation program at a 4-year college/university with a year of student teaching cannot obtain a certification to teach without stipulations; once they have met those stipulations, they can test and become alternatively certified to teach (Bowen et al., 2019). School districts around the United States are battling teacher shortages and are in desperate need of teachers, which has left many states down the path of alternative certification.

Traditional Certification

There has since been a paradigm shift in the preparation. Teachers still utilize four-year programs, but there are other options used for obtaining a certification. The traditional pathway can prove to be difficult for individuals who depend on full-time work. There must be a fiscal commitment to a four-year degree and a semester of student teaching, which up until recently was an unpaid position (HB . Going to school full-time while working full-time is possible, but it can be challenging, especially if the classes are scheduled throughout the day. This is one reason the non-traditional route has become so popular. The traditional route to certification is still a popular way to obtain become a teacher. This allows one to have the college experience on campus and still receive training necessary to complete the requirements for a traditional teaching certification with specialized guidance along the way. The foundation of educator expertise was born and cultivated in four, sometimes five- year teacher preparation programs ran by universities which began with extensive coursework and ended with at least a semester of student teaching.

Alternative Pathways

There are several routes to certification for special education, including more immediate, or emergency, routes. With the continued attrition in the field, states around the county have gotten creative with the ways they can legally allow an adult to act in capacity as an educator. Listed below are just some of the ways that states, in particular Oklahoma, have decided to tackle the shortage, including new legislation that allows adults without a college degree, although the state limits the licensure allowances 70 OK Stat § 70-6-122.3 (2021). The verbiage may change regionally but each state has a process for allowing one to obtain alternative certification in their state. The research underscores a common concern among alternatively certified teachers: they

often feel ill-prepared to handle the demands of the classroom. Unlike traditionally certified teachers who have completed teacher preparation programs, alternatively certified teachers typically lack the same depth of training in pedagogy and classroom management.

Emergency Certification

Emergency certification does not require as many prerequisites as other forms of certification. States do keep up with emergency certifications and tries to limit the amount one can have before standard licensure. This form of certification is least preferred but at time necessary when there are no other viable options for classrooms.

Teacher Preparation Programs

Teacher preparation programs face a unique challenge when troubleshooting just how to address teacher credentialing expectations in today's world. Today's students represent a more diverse, technologically savvy population, but they also carry trauma from a worldwide pandemic that derailed their education for almost two years (Choate et al., 2021). While it would be impossible for teacher preparation programs to prepare educators for each unique circumstance they may face, teacher prep programs must do more to equip new teachers with the tools that they need to be successful in the classroom. Even in other countries, some have concluded that a possible solution is offering more specialized postgraduate certificate programs that address special education classroom teachers (McCrimmon, 2015).

This alternative route to certification allows districts to fill the vacancies in special education with teachers that have at least some formal trainings. It is not ideal, but its requirements are more stringent than an emergency certification. This route to certification allows districts to fill the vast vacancies in special education, but once teachers have filled these vacancies what

support do they receive? The teachers alternatively certified do not have a degree in education or substantial experience in the classroom, support is paramount.

Unlike the overall decline in teacher preparation enrollment, alternative preparation programs (emergency certification, provisional certification, and others) have increasing rising in the last decade (Gilmour et al., 2022; Sutcher et al., 2019). The popularity that resides with the alternative route to teacher certification has come out of necessity. The growing number of vacant teaching positions have forced states to compile requirements for an alternative route which can include but not limited to a specified number of hours directed towards state-specific needs, course work or equivalent experiences, a bachelor's degree in any field, and passing scores for rigorous state certification assessments (Zhang & Zeller, 2021).

Comparison of Alternative and Traditionally Certified Teachers

Studies have shown that alternatively certified teachers feel an increased lack of preparedness and a lack of support outside of mentorship, leaving them to feel inadequate and unprepared (Kee, 2011; Redding & Smith, 2016). Traditional teachers have participated in student teaching and specialized coursework designated to prepare them for the classroom; this training helps to increase preparedness before a teacher enters the classroom, which is more than their alternatively certified peers receive; this additional training in turn allow traditionally trained teachers to have an elevated level of self-efficacy entering the classroom which has (Bowen et al., 2019; Brown et al., 2015; Feng & Sass, 2013; Gilmour et al., 2022). This training just raises their chances; it does not guarantee that traditional instructors will be more effective in the classroom or that they will stay in the classroom. Through various studies, researchers have confirmed what has long been suspected, teacher preparation does matter in the field of special education due to the increased self-efficacy that is obtained through skilled and specialized

training which may better prepare them to fulfill their responsibilities (Boe et al., 2007; Feng & Sass, 2013; Gilmour et al., 2022).

Billingsley & Bettini (2019) explain that research implies preparation combined with supports play a role in teachers' intention to leave their current campus or the profession altogether. Fully certified special education teachers have shown to have an increase of retention than their noncertified peers with evidence suggesting uncertified educators are less likely to remain in their jobs, and attrition rates among new instructors with less preparation are twice as high as those of instructors with more training (Bettini et al., 2019; Gilmour et al, 2022; Gilmour & Wehby, 2019; Feng & Sass, 2013). The implications for attrition are present within the levels of certification; school districts and preservice as well as in-service preparation programs should take note. The support given to a special education teacher provides confidence in the multiple areas of the job. Once special education teachers have entered the school campus, the work is not done. Professional development, PLC, and mentoring are just some of the ways that on campus administrators can provide support to their teachers. Preparation and support were key factors in many studies that has led teachers, especially special educators out of the professional as a whole (Hagaman & Casey, 2017; Sutcher et al., 2019; Skaalvik & Skaalvik, 2021). Preparation and support help build strong self-efficacy can be harder to attain when entering the profession less than prepared with the tools necessary to confidently do the job.

Gilmour and colleagues (2022) asked whether the tools and supports needed have grown with the profession and the evolution of the role of special education classroom teacher. Shortages across the country have led to an increase of roles and responsibilities in the classroom for special education teachers that have led to an increased amount of stress without increase in training (Zhao et al., 2022). One wants to feel prepared to do the work well in any profession. In

terms of education, the duty entails assisting SWD in stocking their toolbox with both academic and nonacademic resources that can facilitate successful postsecondary results.

Shared Responsibilities

Regardless of certification type, once the contract is signed the role of special education teacher begins. There is no argument that prior training helps, but what happens when you don't have it? In addition to the evolving role of teachers, special education teachers have the added responsibility of IEP paperwork (accommodations, modifications, goals, services, and transition planning: preparing students with disabilities for life after high school) and other duties necessary for supporting students with disabilities. IEP drafting and implementation consume a wealthy amount of time of a special education teacher. For preservice teachers, several classes are devoted to this specific topic with case studies and observations to allow teachers to hone their skills and watch seasoned teachers perform the duties that they will soon be responsible for. An alternatively certified teacher, however, is nevertheless expected to perform the job and do it to the legal standard that is required of every special educator, despite lacking considerable prior training. Collecting various tips and trainings combined with administrative support will help build the confidence of an alternatively certified special education teacher; confidence builds confidence, which increases retention and drives the attrition number down (Bowen et al., 2019; Brown et al., 2015; Gilmour et al., 2022; Zhao et al., 2022)

Teachers who haven't had enough training may feel inadequate, frustrated, and overwhelmed. Regardless of training, as a special education teacher, there are legal responsibilities, both state and federal, that teachers are obligated to follow and uphold. There is no caveat for misinformed or underinformed teachers. The responsibility is not lost on teachers. They understand what is being asked of them, and unfortunately, more and more teachers are

deciding that they might not want to carry the obligation. The support special educators are given can make a difference in whether they choose to stay in the profession or leave. Students and teachers alike need more support; they deserve more support, and more importantly, they want more support. There are not enough teachers coming in and more than enough going out, and our children are left to pay the price (Sutcher et al., 2019). Students in the public school system deserve well-prepared teachers in their classrooms.

Theoretical Frameworks

Researchers have employed numerous theoretical frameworks to analyze the issue of retention crises in the county. The following frameworks are outlined in the literature review undertaken by Billingsley & Bettini (2019). Each framework has been described in relation to the phenomena of retention and attrition. While previous research was carried out by Billingsley (1993) and Brownwell & Smith (1993), Billingsley & Bettini (2019) were the first to consider the new teacher qualification criteria introduced by No Child Left Behind (NCLB). Billingsley provided an update in 2004. The article included ten theoretical frameworks, which accounted for only one-third of the studies included in the review. The study analyzed many aspects such as teacher training and credentials, school attributes, working environment, and demographic and nonwork elements of teachers.

Retention and attrition were defined within the review as special educators who left teaching, moved to other positions, transferred to general education teaching, or intended on leaving the profession. This work helps explain the complexity of the problem of retention and attrition in special education. The way it is examined using various methods without a real cohesiveness, not even in the way that retention and attrition are operationally defined within the studies. Located below is a draft of the theoretical framework used throughout the study.

Model of Special Education Attrition

The model of special education attrition, developed by Billingsley (1993), helped explain the attrition trends that were on display across the country. Prior to this model, research was piecemealed together from multiple sources, without an organized cohesive way to look at retention in the field of special education. Through the research, three factors were identified as vital to the decision-making process: external, internal, personal. This allowed other researchers to use this line of inquiry when evaluating attrition their states. Billingsley (1993) takes on the task of operationally defining retention and attrition terms used in previous research by using the categories returns, teacher attrition, and exit attrition. It is noted that returns refer to the teachers that return to the same position and campus the next school year; also, attrition is broken down to transfer attrition, teachers who remain in special education but transfer to a new campus or transfer to general education, and exit attrition, which is made up of any career outside the world of teaching and education.

This model presented a change; researchers now had a blueprint to examining the problem of retention and attrition with a cohesive framework to conduct research. In years since, the model has been used to conduct studies that examine the possible reasons for attrition, as well as the reasons for retention. Prather-Jones (2011a; 2011b) looks at retention through a different lens. Instead of crunching the numbers of teachers leaving, attention was paid to the teachers that continued to stay. At times we can get caught up in the shortage, but the answer to the problem could lie in the teachers that remain in the classroom. Prather-Jones encourages researchers to look into the classrooms to search for solutions to attrition. The next section of the survey addressed participants' attitudes toward staying in the profession. Research suggests that intention to leave does not always align with the action of leaving (Conley & You, 2015, 2017).

There are many studies that have examined the role supports plays in the intention to leave the classroom or the profession altogether (Billingsly & Bettini, 2019; Hagaman & Casey, 2017; Skaalvik & Skaalvik, 2021; Sutcher et al., 2019).

Conservation of Resources Theory

Conservation of resources (COR) looks at special educator's workload compared to general educators. How people perceive and respond to their work environments is related to the balance of demands imposed on them and resources available to meet those expectations. Other studies have supported the use of COR for understanding teacher attrition (Bettini et al., 2017, Gilmour et al., 2020; Gilmour & Wehby, 2019). These same studies posit that the attrition rates of special education teachers are associated with their roles and responsibilities. The reliance on resources, COR theory, and prior knowledge suggests a special education teachers' roles and responsibilities plays a major role in an educators decision to leave or stay.

The demand for special education teachers will continue to rise according to The National Center for Education Statistics (NCES) at least until the year 2028. This projection adds to the immediacy of finding a plausible solution to reducing retention in education. Researchers acknowledges the difficulty schools across the country are having. The other avenues for certification including internships have been used to fill positions, but there is limited research on internship programs especially in comparison to traditional programs (NCES, 2018). Teacher cooperation and administrative support had a reduced possibility of leaving the profession which is consistent with COR (Bettini et al., 2017, Gilmour et al., 2020; Gilmour & Wehby, 2020).

House's Theory of Social Support

Sarros & Sarros (1993) is a seminal article for House's Theory on Social Support. House's definition of social support is described as, "Interpersonal transaction involving one or more of the following: 1) Emotional concern, 2) Instrumental aid (goods and services), 3) Information (about the environment), and 4) Appraisal (information relevant to self-evaluation)" p. 2, 3. This was an attempted to connect burnout and social support. Prior research either made an effort or proposed further investigations in the field. Through the study Sarros & Sarros developed a social support instrument designed for the study and consists of 3 sections: 1) Sources of support, 2) Types of support, and 3) The support teachers themselves offered to others. The instrument was developed in hoped to fill gaps in the current research. In this instrument, House's definitions were operationalized to fit the current instrument: Emotional concern = listening/concern/trust, and Instrumental aid = time, Information = advice/information, Appraisal = feedback.

The conceptualized definitions are similar to the ones from the Cancio and Colleagues (2013) article (emotional and appraisal) which looked at administrative support, although the findings do not endorse social support as a resource for dealing with work. The study found that special education teachers have an unusual steep hill to retention but EBD teachers have an even steeper climb. Additionally, "Characteristics of administrative support significantly correlated with intent to stay in the field identified in this study were the extent of support for opportunities for growth, appreciation, and trust in addition to job satisfaction and positive views about the school" (Cancio et al., 2013, p. 71).

Affective Events Theory

Affective Events Theory (AET) suggests that emotional responses to work including the nuanced belief's that one has about their job, can affect job satisfaction and may even be a predictor of intentions to remain in teaching. Workplace experiences shape emotions and moods, which are believed to have a direct impact on attitudes at work; overall assessments of job satisfaction are influenced by both abstract views about one's job and emotional reactions to one's work (Jones & Young, 2012).

Jones & Young were the first study that attempts to use AET in education so there isn't any study like this prior to 2012, although the results provide promising data that should encourage more researchers to follow suit. Researchers argue that affective reactions are activated by one's specific work events. So randomly capturing events throughout the workday could be a great way to measure the emotions and moods of beginning teachers (Jones & Young, 2012). Sarros & Sarros (1993) also attempted to predict burnout but used House's theory on social support as a framework. Findings show that positive affect and skill are positive associated with commitment; this is still true when controlling for prior commitment. Additionally, negative affect and tiredness were predictors of burnout (Jones & Young, 2012). With these findings policy makers, administrators, and even researchers should take into account a teacher's emotional reactions to their work because it matters, it could affect their tenure in schools.

Ecological Systems Theory

Brownwell & Smith (1993) adapted Urie Bron in the phenomenological study of veteran special education teachers and their decision to stay in the field, Lesh and Colleagues (2017) uses two theoretical frameworks to looks at the veteran teaching experiences: 1) Bronfenbrenner's ecological systems framework and 2) Billingsley's (1993) special education teacher attrition

model. This is similar to previous studies by Prather-Jones (2011a & 2011b) who also looked at why teachers stay. This article adds to the narrative of why teachers stay identifying three themes and two sub-categories:

- A calling from above
- Standing up for the underdog
    - Personally committed to my kids, my babies
- Beating the bushes with the apathetic
    - Against my better judgement

Social Cognitive Theory

Social Cognitive Theory (SCT), a component of self-efficacy, was introduced by Bandura and defined as an individual's perception of one's competencies, which plays a significant role in ambition and outcome expectations (Bandura 1977, 1997, 2001); Bandura suggests that a person's confidence in his abilities can determine his drives and decisions (Bandura, 2001). Researchers have continued to use the foundation of SCT to define and explore teacher efficacy in educational contexts, making necessary updates over time (Dawson & Scott, 2013; Lu et al., 2020; Salas-Rodriguez et al., 2021). SCT has been used to study this phenomenon and others within the education sector (Brendli et al., 2022; Lombardo-Graves, 2017; Scott et al., 2022).

Bandura's (1977, 1997) social cognitive theory (SCT) has continued to evolve over time. Researchers have continued to use the foundation of SCT to define and explore teacher efficacy within educational realms, also making necessary updates throughout the years as needed (Dawson & Scott, 2013; Lu et al., 2020; Salas-Rodriguez et al., 2021;). According to Bandura, teacher efficacy can be described as a teacher's belief in one's capabilities to carry out specific

teaching practices to affect desired student outcomes (Bandura, 1995). Efficacy is often evaluated in North America and central to teaching efforts nationally (Duffin et al., 2012) and continues to be at the forefront of teaching globally (Ene et al., 2021; Fackler & Malmberg, 2016; Ma et al., 2023). Studies across the world have evaluated and explored teacher self-efficacy and there is a consensus among researchers, it is an important variable in teacher and student outcomes (Klassen & Chiu, 2010; Skaalvik & Skaalvik, 2009).

Measurement of self-efficacy beliefs is usually task or behavior-related (Bandura, 1977); however, beliefs of ability are founded in one's perception of their ability to execute specific tasks or behaviors, remaining independent of the outcomes (Tschannen-Moran & Hoy, 2001). In the late 1970s, researchers began developing scales to measure an individual's belief in their ability to cope with various challenges (Ashton et al., 1984); a notable contribution from this era was the development of the General Self-Efficacy Scale (GSES) (Schwarzer & Jerusalem, 1995), a widely adopted tool for assessing general self-efficacy.

Over the years, Bandura and other researchers have conducted studies on efficacy, including the development of general scales to assess perceived self-efficacy. These scales are not specific but rather encompass a range of domains, such as academic tasks, athletic performance, and coping with stress. While they provide valuable information within specific areas, they are not as widely applicable or straightforward as the General Self-Efficacy Scale (GSES) developed by Bandura (2006, 2012), Schwarzer and Jerusalem (1995), Solomon and Scott (2013), and Tschannen-Moran and Woolfolk Hoy (2001).

In various professional domains, efficacy has been recognized as a crucial factor for achieving success, both in one's professional and personal life; the way individuals perceive themselves holds significant importance in numerous aspects of life (Barni et al., 2019; Kim et

al., 2020; Tschannen-Moran and Woolfolk Hoy (2001). The way in which an individual perceives themselves is of immense importance to a great number of aspects of life (Barni et al., 2019; Kim et al., 2020). Efficacy has been a concept that has been coined throughout professional arenas as a vital component of one's ability to thrive both professionally and personally respectively.

Efficacy

Teacher efficacy is described as a teacher's confidence in their capacity to implement specified instructional strategies that effect intended student outcomes (Bandura, 1977, 1995, 1997). Efficacy is regularly examined and is fundamental to national teaching initiatives it continues to be at the forefront of worldwide teaching (Duffin et al., 2012; Ene et al., 2021; Fackler & Malmberg, 2016; Ma et al., 2023). Researchers believe that teacher self-efficacy is an essential determinant in teacher and student outcomes (Klassen & Chiu, 2010; Skaalvik & Skaalvik, 2009).

Self-efficacy beliefs are typically measured in terms of task or behavior rather than outcome (Bandura, 1977); however, beliefs of ability are based on one's perception of their ability to execute specific tasks or behaviors, regardless of the outcome (Tschannen-Moran & Hoy, 2001). In the late 1970s, researchers began developing scales to assess an individual's belief in their ability to cope with various challenges (Ashton et al., 1984); one notable contribution from this era was the development of the General Self-Efficacy Scale (GSES) (Schwarzer & Jerusalem, 1995), a widely used tool for assessing general self-efficacy. Over the years Bandura has continued to create research around efficacy, including general scales that can be used to measure perceived self-efficacy; which is not a specific scale but more of a concept of scales that is designed to measure a wide variety of domains including academic tasks, athletic

performance, and coping with stressful scenarios, which adds valuable information within specific domains, although it is not as generalizable, simple, or applicable.

Burnout

Burnout is a term that is heavily used in professional settings, but often is used incorrectly. According to the World Health Organization (WHO), burnout is classified as an occupational phenomenon and defined as chronic workplace stress that has not been successfully managed resulting in 1) feelings of energy depletion or exhaustion, 2) increased mental distance from one's job, or feelings of negativism or cynicism related to one's job, and 3) reduced professional efficacy (World Health Organization, 2019). Although not a medical condition, burnout can have debilitating effects on one's professional life. Burnout not only contributes to attrition but can also lead to decreased workplace productivity; for example, if someone does not have the financial freedom to leave a position, they may function at a minimum level rather than giving their all (Leiter & Maslach, 2004).

This definition aided the creation of the most used assessments to measure burnout. The Maslach Burnout Inventory (MBI), released in 1981, is the first scientifically developed measure of burnout and is used widely in research studies around the world in multiple professional areas (Maslach, 1986). Today, burnout is discussed with a seriousness, an intention due to the effect that it can have on one's personal and professional lives. Burnout can negatively affect multiple levels of one's life to include personal and professional relationships. MBI, uses its 7-point Likert scale to examine the measures of burnout in various professions. Not only has it been adapted to fit numerous professions specifically, translations in over 50 languages exists are available in many of the versions. MBI measures one's level of burnout by assessing 3 distinct areas: exhaustion, cynicism or depersonalization, and professional efficacy.

CHAPTER 3: METHODOLOGY

This chapter presents an overview of the research methodologies employed in the study. It includes a detailed explanation of the research questions, the design and justification of the research, the methods used for sampling and collecting data, the analysis and interpretation of the data, the ethical considerations related to human subjects, and the instruments utilized in the study.

Research Problem

The rise in demand for special educators can be attributed to various factors, such as heightened awareness and identification of students with disabilities, an increased need for resources to support students with disabilities (SWD) in inclusion settings, and an overall decline in the number of educators graduating from training programs (Devier, 2019; García & Weiss, 2019; Gilmour et al., 2019; Sutcher et al., 2016). The various reasons have strained the current pool of special education teachers, leading to reduced services for students with disabilities and a nationwide shortage of teachers skilled in teaching all types of disabilities (Billingsley & McLeskey, 2004; Peyton et al., 2020; Zhang et al., 2013). Researchers continue to study possible solutions to remedy attrition, including examining current teacher preparation programs as well as induction processes for alternatively certified special educators.

Research Purpose

Research shows special educators are leaving the profession at high rates (Boe & Cook, 2006; Gesel et al., 2022; Sutcher et al., 2019). This study aims to investigate how the certification pathway of secondary special education K–12 public school teachers impacts their self-efficacy and burnout, which ultimately affects their intention to stay in the field. This study investigated the correlation between the self-efficacy of teachers with different certification

pathways and their intention to remain in the profession, as indicated by their satisfaction in their current role. Self-efficacy and burnout were treated as proposed mediators of the effect of the certification pathway on the intention to leave the profession.

Research Design

The study will use a quantitative method through a survey research design. A survey design is appropriate for this study because it will allow me to reach a substantial number of participants and establish a broad sample for evaluating the relationship between the certification pathway and teacher intent to leave the field of education through descriptive statistics and regression. Perceived self-efficacy was captured using the Lombard-Graves (2017) Pre-Service Special Education Efficacy Scale (SEES-I) and treated as a mediator in a serial mediation model evaluating intention to leave the profession.

The survey was created using a cross-sectional design, meaning that the data collected represents a single point in time. The process of data gathering entailed the development of a survey that was accessible through a secure website, Qualtrics. Participants had the opportunity to access and complete the online survey for a duration of two weeks. The benefits of the online approach include its monetary efficiency for researchers, the convenience for potential participants to access and complete the survey at their own time, and the ease with which investigators can acquire and evaluate the survey data.

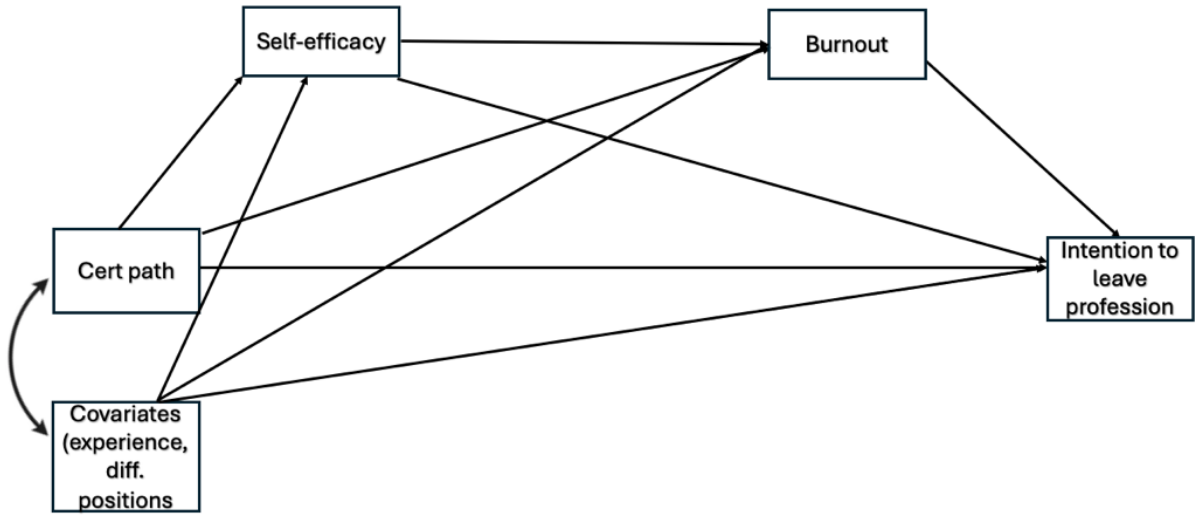
Research Questions

1. Does certification pathway impact a special educator's self-efficacy?
2. Does certification pathway impact a special educator's level of burnout?
3. Does certification pathway impact a special educator's intention to leave the profession?

4. Is the effect of the certification pathway on the intention to leave mediated by self-efficacy?
5. Is the effect of the certification pathway on the intention to leave mediated by burnout?

Figure 1

Proposed theoretical model



Participants and Procedures

Recruitment was completed via email utilizing an open records request for the official listserv for teachers in the state. The original request specified a need for only special education teachers, but the state informed the researcher that a database dedicated solely for special education teachers does not exist; therefore, a list including general and special education teachers was provided. Due to the categorization of the document, teaching specialization was not discernable. With that in mind, the survey was sent to every teacher on the listserv.

The survey was created in Qualtrics. The participants accessed the survey via Qualtrics as well. This allowed all sensitive information to live in one place under password protection. Data collection also took place online. The survey was accessible for educators to participate over a 14-day period. After the survey is completed, a separate link was provided at the end of the initial survey that took participants to access another survey in a separate tab where participants were asked to input their email address, which allowed them to enter the drawing for the gift cards. This ensured that the participants maintain their anonymity throughout the initial survey. Data was stored on a secured server.

Once procedures and informed consent were accepted by the participant, screening questions that sifted participants into three categories general education teachers, special education teachers, and specialization not listed. This ensured that the data of special educators was not combined with general educators or any other participants that attempted to complete the survey. Only the special educators were prompted to complete the survey. The survey ended after the specialization screen for any persons who were not currently in the classroom and indicate a different specialization than special education.

This study was carried out with special education teacher in the state of Oklahoma. In total, 197 adults aged 25 and older participated in the study.

Inclusion Criteria

Participants for this study are current special educators in the public-school setting for grades K-12. Because this study focuses on special educators in the public K-12 setting, care was taken to sift participants into appropriate categories to answer research questions and test hypotheses. Teachers that met all requirements below were eligible for the survey.

Inclusion criteria:

(a) participants must be at least 18 years of age, and

(b) consent to participate in the online survey, and

(c) currently a special educator at a K-12 public school in Oklahoma, and

(d) completed a pre-service teacher preparation program at an accredited university in the field of education, or

(e) enrolled and/or completed a bootcamp style program with the state of Oklahoma, an accredited university, or an approved school district, and

(f) hold a current state licensure in the field of education in the state of Oklahoma, and work as a classroom teacher in a K-12 public school, and

(g) participants completed a sufficient amount of the survey to be added to analysis

An open access request was sent to the Oklahoma State Department of Education to obtain the official listserv for educators in the state of Oklahoma. Due to the nature of the formatting of the documents obtained in the listserv, separating general and special educators was not possible. The survey was sent to everyone on the document coded as teacher on the listserv; however, fail safes were embedded in the survey to weed out erroneous survey responses. Emails were also sent to nonteaching administrative personnel in hopes to recruit special educators that were not accounted for on the state listserv. Before the demographic questions at the beginning of the survey, they are questions designed to eliminate special educators that do not meet the inclusion criteria to keep their information from being analyzed in the statistical portion of the study.

Participants' identities are confidential and informed consent of rights to participate were electronically obtained at the beginning of the survey with the appropriate documentation from the University of Oklahoma IRB. The target number of participants for this study is 250. Upon

completion of the survey, participants had the option to enter a drawing for twenty $25 Amazon gift cards as an honorarium for their participation. The drawing was held after the survey closed and the beneficiaries were sent their gift card via email after the survey was completed.

Instruments

The online survey was created in Qualtrics, and all information collected from the survey including subsequent .csv or Excel documents were protected in a secure OneDrive folder at all times (see Appendix D). The survey was distributed to participants who meet inclusion criteria utilizing the listserv containing active certified teachers in the state of Oklahoma. To increase response rates, researcher utilized multiple contacts, reminders, assurance of confidentiality, and other common strategies used to increase response rates (Dillman et al., 2014; Hott et al., 2021). IRB approval was obtained before research begins and each participant electronically agreed to participate via informed consent (see Appendix A); any sensitive information was de-identified before data is released for publication to protect the anonymity of participants data was stored responsibly on a password protected computer. The survey was composed of three sections: The first contained information about the study itself and its objectives, anonymity, and consent form. The second part consisted of a series of socio-demographic questions. The third part was composed of the following three instruments used in this study: self-efficacy, burnout, and intention to leave the profession.

Demographics

In the demographic section of the survey, participants provided general information, including race/ethnicity, gender, age, salary range, education level, certification pathway, experience, and current locale. All questions are multiple response or fill in the blank dependent on the type of question.

Teaching Specialization. Participants were asked to indicate their primary teaching specialization. This question was used to sift through participants and eliminate everyone who does not identify themselves as a special educator from the survey. The options given for this question include General Education Teacher, Special Education Teacher, or Specialization not listed. If one did not select special education teacher option, they were prompted to the end of the survey. Results revealed 197 special education teachers.

Race/Ethnicity. Race and ethnicity were collected in accordance to the U.S. Census. Race options that were given include American Indian/Alaska Native, Asian, Black or African American, Native Hawaiian and Other Pacific Islander, and White. Participants were given the opportunity to select every choice that applies. Ethnicity was listed as a dichotomous option of Hispanic/LatinX or Not Hispanic/Latin X.

Racial and ethnicity demographic information collected show that 95.4% (*N*=188) were not Hispanic or Latinx, while the remaining 4.6% (*N*=9) were. Of the 197 participants, 75.1% (*N*=148) identified as White, 10.2% (*N*=20) identified as both White and American Indian/Alaska Native (AI/AN), 5.6% (*N*=11) identified solely as AI/AN, 6.1% (*N*=12) identified as Black or African American, 1.5% (*N*=3) identified as Asian, 1.0% (*N*=2) identified as both Asian and White, and 0.5% (*N*=1) identified as both Black and White.

Gender. Gender identity was collected in order to be inclusive and align with ADA. Participants were given the following options: Male, Female, Non-binary/Non-conforming, and Prefer not to say. Female participants accounted for 89.8% (*N*=177) of participants, 9.1% (*N*=18) of participants accounted for were male, with the remaining participants identifying as 0.5% Non-Binary (*N*=1), and 0.5% prefer not to say (*N*=1).

Age. Special educators were also asked to input their age, rounded to the nearest whole

number. Ages were then aggregated into the following categories based on the U.S. Census age groups: 18-24 years, 25-34 years, 35-44 years, 45 to 64 years, 65 to 84 years, 85 to 99 years, and 100 years and over. Participants were asked for their age which was then were aggregated into 9-year groups, modeling the most recent US Census Report. Of the 197 participants, 33.5% (*N*=66) were in the 45-54 age range, 24.4% (N=48) were in the 35-44 age range, 25.9% (N=51) were in the 55-64 age range, 12.2% (N=24) were in the 25-34 age range, 2.0% (N=4) were in the 65-74 age range, 0.5% (N=1) were in the 75-84 age range, and 1.0% (N=2) prefer not to say.

Salary Range. Salary range was an additional control collected in the survey. Participants were asked to choose between the following: under $35,000, $35,00 to $50,000, $50,000 to $65,000, $65,000 to $80,000, $80,000 to $95,000, and $95,000 or more. Responses showed that 42.1% (*N*=83) of participants reported a salary of $50,000-$65,000, 40.1% (*N*=79) reported a salary of $35,000-$50,000, 10.7% (*N*=21) reported a salary of $65,000-$80,000, 6.1% (*N*=12) reported a salary of $80,000-$95,000 and 1% of respondents reported a salary of lower than $35,000 (*N*=1) or higher than $95,000 (*N*=1).

Education Level. Participants were asked to provide the highest level of education that they have completed. The options listed include Some college, Associate's Degree, Bachelor's Degree, Master's Degree, Ed.D, Ph.D., or higher, or Other. If participants choose the Other, they are then asked to manually input their highest level of education. Of the total 197 respondents, 114 (57.9%) held a master's degree, 76 respondents held a bachelor's degree (38.6%), while 7 (3.6%) respondents indicated they held an Ed.D., Ph.D., or higher.

Certification Pathway. Certification pathway was assessed using one question in the survey. Participants were asked to identify the original pathway in which they obtained their teaching licensure. The options that participants were presented were based on the current

pathways available in the state. The options presented were Adjunct, Alternative, Emergency, Teach for America, Traditional Teacher Prep, Troops to Teachers, and Other. If participants choose the Other, they were then asked to manually input their original certification pathway. Responses, which asked about certification pathway, showed the majority of respondents (56.5%, *N*=108) went through a traditional teacher preparation program. Alternative certifications were held by 36.6% (*N*=70) of respondents, 4.7% (*N*=9) had emergency certifications, and 1% (*N*=2) were adjunct. The options for Troops to Teachers, Teach for America, each had one (0.5%) respondent.

Experience. Years of experience as a classroom teacher was collected. Additionally, Participants were asked how many teaching position changes they have experienced in their career. A text answer as a whole number was recorded for both questions. The participants' experience levels ranged from 2 to 44 years. The top three most common responses were three, four, and five years of experience, with 13 teachers each. Frequency counts for the number of teaching positions held by respondents were computed. The majority of respondents (46.6%, *N*=89) had held 2-3 different teaching positions, 24.6% (N=47) held 4-5 different teaching positions, 16.2% (N=31) had held one position, 10.4% (N=20) had held 6-9 different positions, 1.5% (N=3) had held 12-16 different teaching positions, and 0.5% (N=1) prefer not to say.

Locale. Special educators were asked for their current school district. This information was recorded to examine any changes in answers based on locale. Oklahoma City Public Schools recorded the most responses (n = 25, 12.7%), with Epic Charter Schools coming in second (n = 15, 7.6%), and Norman Public Schools third (n = 12, 6.1%)

Time Allocation. Each participant was asked to identify the largest time allocation of their current teaching position, but this may not indicate their only allocation. Three options were

given, Co-teaching, Resource/Lab, or Self-Contained. Survey responses indicated that 55.7% (*N*=107) of participants taught in a Resource/Lab setting, while 34.4% (*N*=66) were in a self-contained setting, and 9.9% (*N*=19) were in a co-teaching setting.

Content Area. Educators were asked the subject area that they teach, they could select all that apply. Options for this question include Math, English, Science, Social Studies, and Other. If participants chose Other, they are then asked to manually input the content area they currently teach. Once these answers were recorded, the satisfaction portion of the survey began.

Self-Efficacy

Teacher Self-efficacy was assessed using the Pre-Service Special Educator Efficacy Scale (SEES-I), see Appendix H, designed using the Council for Exceptional Children guidelines for early career special education teachers (Lombardo-Graves, 2017). The scale was created with recommended guidelines and consists of 23 numerical scale (0-10) response items (Lombardo-Graves, 2017; Woolfolk Hoy, 2007). An eleven-point Likert scale with anchors from 0 – 2 "Strongly Disagree" to 8 – 10 "Strongly Agree" was used. High scores indicated high efficacy (Cronbach's alpha = .922).

The reliability of scores collected from the instrument was evaluated during the pilot study; five professionals with expertise in the specific fields described assessed the instrument and made suggestions on how to strengthen the survey, in addition, 243 special education teacher candidates completed the survey and their scores were analyzed for consistency across the scale items (Lombardo-Graves, 2019). Once the items were finalized, an analysis was completed to assess the reliability of the SEES items, the value of Cronbach's alpha (1982) revealed the reliability of the scores obtained from SEES-I, which designates the instrument as good (subscale

1: α = .954; subscale 2: α =895; subscale 3: α = .923); no items were removed to improve reliability because the deleting items did not substantially improve the reliability.

A factor and parallel analysis were performed to measure validity of the instrument, examining 243 special education teacher candidates' responses to the items and identifying consistent factors throughout the survey (Lombardo-Graves, 2017). The assessment revealed three factor loadings: Learner Development and Learner Differences (10 items), Instruction and Strategies (6 items), and Curriculum Content and Planning (7 items) yielding approximately 70% of explained variance (see Appendix F). The pattern matrix performed allowed the researcher to place items with the appropriate factor loading. Construct validity continues to evolve for the measurement as researchers continue to utilize the scale.

The SEES-I is a newer scale that was designed solely for special education teachers. Lombardo-Graves (2019) created an instrument that gauges the readiness of pre-service special education teachers to enter the classroom. This scale was chosen for special educators due to the alignment with Council of Exceptional Children's (CEC) standards for initial special education teachers, which continue to be the indicators required by institutions of higher education for accreditation in the field of special education. A total efficacy score was achieved by aggregating items across scales to arrive at a full-scale score of teacher self-efficacy. Cronbach's alpha for the efficacy score was .922, indicating an acceptable level of reliability.

Burnout

Burnout was assessed using the 22-item Maslach Burnout Inventory Educator Survey (MBI-ES; Maslach et al., 2016). The Maslach Burnout Inventory (MBI), designed in 1981, is the first scientifically developed measure of burnout and has seen many adaptations throughout time. The MBI continues to be a popular measure of professional burnout in the world in a variety of

professional fields, with translations in over 50 languages and utilized in research studies worldwide (Brasfield et al, 2019; Ghasemi et al., 2022; Maslach et al., 1996; Pavlidou et al., 2022). There are currently five versions of the MBI, each with varying questions regarding burnout out in various professional settings (see Appendix I). The Maslach Burnout Inventory: Education Survey (MBI-ES) was used to measure burnout in the special educators participating in this study (see Appendix B). MBI-ES measures one's level of burnout by assessing 3 distinct areas (see Appendix G): emotional exhaustion (9 items), depersonalization (5 items), and personal accomplishment (8 items).

Using a frequency scale to assess the three dimensions of burnout independently, participants utilize a 7-point Likert scale ranging from 0 (*never*) to 6 (*every day*). A 7-point scale was preferred by researchers citing it creates a more standardized response scale, so that the researcher can be fairly certain about the meaning assumed by respondents for each scale value (Maslach et al., 1996). The scores for each subscale are considered separately for each respondent. The researcher can code each score into low, average, and high categories by using the numerical cutoff points listed on the scoring key.

Emotional Exhaustion. Emotional Exhaustion (EE) is operationally defined as feelings of being emotionally overextended and exhausted by work. There are nine items on the survey dedicated to exhaustion. Higher scores in EE indicate higher degrees of burnout.

Depersonalization. Depersonalization (DP) is operationally defined as unfeeling and impersonal responses toward recipients of one's service, care, treatment, or instruction. Educators that are experiencing depersonalization are no longer having positive feelings about their students. There are 5 items dedicated to depersonalization. Higher scores in DE indicate higher degrees of burnout.

Personal Accomplishment. Personal Accomplishment (PA) is operationally defined as feelings of competence and successful achievement. Educators who are experiencing a lack of personal accomplishment may struggle to feel that they are positively contributing to student success. There are eight items dedicated to personal accomplishment. Lower scores in PA indicate higher degrees of burnout.

Reliability for the MBI-ES have shown good internal reliability and some stability over time (see Table 3, Appendix K) for Cronbach's alpha estimates for multiple studies. In some instances, depersonalization has yielded lower reliability estimates but remains within acceptable levels. Test-retest reliability estimates scored lower than the internal reliability with a .60 for emotional exhaustion, .54 for depersonalization, and .57 for personal accomplishment (Jackson et al., 1986). However, without knowing the timeframe for test-retest, it is impossible to conclude if test-retest reliability is a genuine concern, or if participants experienced events in their own lives that could contribute to burnout. Thus, the stability of burnout scores over time is a topic that requires further research. Summer breaks provide teachers with more time to recover from burnout, but they may also experience stress due to organizational conditions and administrative concerns. The validity of the MBI-ES burnout scale is supported by various studies that have examined the relationship between burnout and different aspects of the work experience (See Table 2, Appendix J). Reliability for MBI-ES was calculated; Cronbach's alpha for the efficacy score was .817, indicating an acceptable level of reliability.

Intention to Leave

The next section of the survey addressed participants' attitudes toward staying in the profession Intention to leave was measured using an ad hoc scale constructed for the purpose of this study. Six questions were asked pertaining to job satisfaction in their current position. Four

of the questions specifically asked participants if they intended to leave the profession within the next five years (Ex: *I intend to leave the field of education in the next 3 years*). Participants answered using a 5-point Likert agreement scale ranging from "Strongly disagree" to "Strongly agree." Reliability was assessed using Cronbach's alpha (.823).

Data Collection

The data gathering method employed was a web-based survey completed online using Qualtrics (see Appendix D). The survey was accessible for educators to participate over a 14-day period with a link provided individually to potential participants email to maintain anonymity, including intermittent reminders with the end date provided. Prior to arriving at the survey, but after reading the recruitment letter (see Appendix C), participants were given their informed consent and asked to agree or disagree to participate before moving on to the next screen. Upon accessing and completing the survey, participants had the option to enter their email address for a chance to win an Amazon gift card; a separate survey was provided at the end of the survey for participants that wanted to enter the drawing for the gift cards, but it was not required for participation in the study (see Appendix E). This data was kept separate and stored on a secured server.

Statistical Analysis

Teachers completed a questionnaire containing items related to teacher efficacy, intention to leave the field of education, and burnout, to also include demographic questions that also collected the certification pathway that each participant originally sought on their way to licensure. To prepare the data set for analysis, the researcher conducted a series of pre-analysis data screening procedures. First, the data were screened to ensure the data set was accurate. For quantitative variables, the researcher examined the range of values to ensure there were no

entries outside the range of possible values. For categorical variables, the researcher ensured all data entries had coded values that corresponded to the possible categories.

Data analyses were performed with the aid of SPSS version 29 software. In the first step, a set of descriptive statistics, including the mean, standard deviation, and correlation coefficients, were computed for the variables being studied. Subsequently, testing was performed with the aid of the Macros PROCESS procedure for SPSS version 4.2 (Hayes, 2018). A serial mediation model was tested using model 6. Prior to testing the model, all variables were standardized. The statistical significance of the regression coefficients was assessed by computing the 95% confidence intervals using bootstrapping. According to Hayes (2018), regression coefficients are considered significant when their confidence interval does not include zero. Cronbach's Alpha for internal consistency estimates of reliability in applied settings at $\alpha \geq 80$ (Henson, 2001). Results were reported in narrative form and represented visually using tables and charts.

CHAPTER 4: RESULTS

This chapter presents an overview of the data analyses from the study. This study explored how self-efficacy can act as a predictor of the likelihood of staying in the field of special education for alternatively certified special education teachers in the K-12 public school setting. A total of 191 special education teachers participated in this study.

Descriptive Analyses

To prepare the data set for analysis, the researcher conducted a series of pre- analysis data screening procedures. First, the data were screened to ensure the data set was accurate. For quantitative variables, the researcher examined the range of values to ensure there were no entries outside the range of possible values. For categorical variables, the researcher ensured all data entries had coded values that corresponded to the possible categories.

Next, the researcher took steps to mitigate the effects of missing data, which occurs when subjects do not respond to all items. To be included as a respondent, participants could have no more than two missing responses. Because categorical variables with more than two levels cannot be entered into a regression model and interpreted meaningfully, the dummy coding process was used to transform categorical variables with more than two levels into dichotomous variables (Mertler & Vannatta, 2005). Dummy coding is a process for assigning categorical variables in a multiple regression model and uses ones or zeros to convey group membership (Creswell, 2009; Trochim & Donnelly, 2006). See Appendix M for the table of descriptive statistics.

Serial Mediation Analyses

Using the data from the survey, I ran a serial mediation model using Process template 6, with certification route as the antecedent, self-efficacy as the first mediator, burnout as the

second mediator (in the proposed causal sequence), and intention as the consequent. Covariates age, highest degree completed, experience in years, and salary were evaluated within the model.

For this analysis, I specified a model in which the proposed causal effect of certification pathway (coded with 0 = traditional 1 = alternative), on intention to leave the profession was mediated by efficacy (M1) and burnout (M2). Salary (coded 1= under $35,000, 2= $35,000 - $50,000, 3=$50,000 - $65,000, 4=$65,000 - $80,000, 5=$80,000 - $95,000, 6=$95,000 and above) was also included in the specified model as a covariate. Additionally, age (rounded to the nearest whole number), experience (in years also rounded to the nearest whole number), and highest education level completed (coded 1=Some college, 2=Associate's Degree, 3=Bachelor's Degree, 4=Master's Degree, 5=Ed.D, Ph.D., or higher, or 6=Other) were also treated as covariates. I performed the analysis using PROCESS 4.2 (Hayes, 2022), a macro for IBM SPSS. I used the PROCESS template 6, which is appropriate for use with a serial mediation model of the sort proposed in my study. I used the default number of bootstrap samples, set at 5,000. All confidence intervals [both normal theory and percentile bootstrap] were set at 95%.

Results for each regression equation are provided in Table 7 (see Appendix N). Age and salary emerged as positive and statistically significant predictors of the proposed mediator, self-efficacy, in the first regression equation. In the second equation, none of the variables or covariates were identified as statistically significant for the second mediator, burnout. In the final regression equation, burnout was a positive and statistically significant predictor of intention to leave the profession. Additionally, self-efficacy was negative and statistically significant predictor of intention to leave the profession. Moreover, the direct effect of certification pathway on intention to leave the profession was not statistically significant. Highest education level achieved, and experience were not significant predictors in any of the equations.

Direct, Indirect, and Total Effects

The total unstandardized indirect effect (IE=.1023) of certification pathway on intention to leave the profession was positive. The 95% bootstrap confidence interval [-.0731,.2877] included 0, indicating the total indirect effect was not statistically significant. The specific indirect effect (IE= -.0210) of certification pathway on intention to leave the profession via self-efficacy was negative. The 95% bootstrap confidence interval [-.1128,.0437] also included 0, indicating that the path was not significant. The specific indirect effect (IE=.1258) of certification pathway on intention to leave the profession via burnout did not attain statistical significance, as the 95% bootstrap confidence interval [-.0410,.3043] did include 0. The specific indirect effect (IE= -.0024) of certification pathway on intention to leave the profession via efficacy and burnout did not attain statistical significance, as the 95% bootstrap confidence interval [-.0186,.0151] included 0. I performed a test of the difference in indirect effects using the 'contrast' option in PROCESS. The difference (-.1468) in the specific indirect effects via efficacy and burnout was not statistically different from zero, 95% bootstrap CI = [-.3523,.0364].

Research Question 1

Does certification pathway impact a special educator's self-efficacy?

Certification Pathway and Self-Efficacy

Research question 1 asked how teachers' certification pathway impacted their self-efficacy in the profession. To address this question a regression model was constructed. The model included the certification pathway (survey item 10), which has the independent variable dummy coded with 0 = traditional 1 = alternative and SEES-I cumulative score (survey items 24-46), which was the dependent variable. Self-efficacy did not show statistical significance (p =

.15, M = 194.16, SD = 22.378) within the model. This indicates that certification pathway has an impact on special educator's self-efficacy.

Research Question 2

Does certification pathway impact a special educator's level of burnout?

Certification Pathway and Burnout

Research question 2 asked if teachers' certification pathway impacted their level of burnout. To address this question a regression model was constructed. The model included the certification pathway (survey item 10), the independent variable dummy coded with 0 = traditional 1 = alternative, and the sum of MBI-ES (survey items 47-68), which was the dependent variable. Each item evaluated one of the three factors of burnout Emotional Exhaustion (EE), Depersonalization (DP), and Personal Accomplishment (PA). Results show that certification pathway is not statistically significant to burnout (p = .39, M = 71.91, SD = 15.04). This suggests that certification pathway does not have a significant effect on burnout.

Research Question 3

Does certification pathway impact a special educator's intention to leave the profession?

Certification Pathway and Intention to Leave the Profession

Research question 3 asked if teachers' certification pathway predicted their likelihood to leave the profession. To address this question a regression model was constructed. The model included the certification pathway (survey item 10), the independent variable dummy coded with 0 = traditional 1 = alternative, and job satisfaction (survey items 14-17), which was the dependent variable. Results show that job satisfaction is not statistically significant (p = .98, M = 9.58, SD = 4.66) suggesting that certification pathway does not predict the likelihood to leave the

profession. Additionally, certification pathway was evaluated with job satisfaction during the mediation model.

Research Question 4

Is the effect of the certification pathway on the intention to leave mediated by self-efficacy?

Self-efficacy as a Mediator

Research questions 4 focused on self-efficacy as a mediator on certification pathway in relation to intention to leave the profession. To answer this question, I analyzed responses from survey items 24-46 to create a total sum for efficacy. Then, a serial mediation model was performed with PROCESS model 6 using efficacy as M1 and burnout as M2. Certification pathway was used as the x variable and job satisfaction as the y variable. This interpretation involved: (a) reporting whether or not statistical significance was obtained for each statistical test, (b) reporting how the results answered the research questions, and (c) explaining the findings.

The model summary for efficacy explained approximately 12% of the variance in the outcome and this was statistically significant ($p < .001$). Additionally, in the model, results showed that certification pathway had no significant statistical effect on self-efficacy ($p= .4995$), indicating that changes in certification pathway did not influence self-efficacy; however, salary ($p= .0008$) and age ($p= .0276$) were statistically significant indicating that an increase in salary and age can amount to higher measures of efficacy.

Research Question 5

Is the effect of the certification pathway on the intention to leave mediated by burnout?

Burnout as a Mediator

Research question 5 primarily investigated the role of burnout as a mediator in the certification process and its impact on the intention to leave the profession. In order to address this question, I conducted an analysis of the responses obtained from survey items 47-68, with the purpose of calculating the cumulative score for burnout. A sequential mediation model was conducted using the SPSS macro process model 6. Efficacy was used as M1 and burnout as M2. The certification pathway was utilized as the dependent variable (x) and intention to leave as the dependent variable (y). This analysis entailed: (a) indicating whether or not statistical significance was achieved for each statistical test, (b) reporting how the results addressed the research inquiries, and (c) providing an explanation of the findings. The model summary for burnout explained approximately 3% of the variance in the outcome and this was not statistically significant ($p=.3728$). Further results indicated that the certification pathway did not have a statistically significant effect on burnout ($p=.15$), suggesting that adjustments in the certification pathway did not influence burnout. However, burnout ($p < .001$) and efficacy ($p = .05$) were statistically significant when evaluating intention to leave.

CHAPTER 5: DISCUSSION

Introduction and Summary of Study

The purpose of this study was to investigate how certification pathway can influence the chance of retention in the field of special education for K-12 public school teachers. Teacher certification has drastically changed over time in the field of special education and the way educators are prepared must change with it. With the amount of emergency and alternative certifications are granted every year, more and more special educators are entering the classroom with little to no formal preparation or training. The Oklahoma State Department of Education recognizes several avenues of certification to include Adjunct, Alternative, Teach for America, Traditional Teacher Preparation Program, Troops to Teachers, but for the purpose of this data analyses, two categories were created: traditional and alternative certification pathways. Traditional certification pathway refers to an educator who completed a traditional teacher preparation pathway at a university to include a teaching practicum. Alternative certification pathway refers to any other pathway to licensure outside of the traditional pathway.

The quantitative study used a survey design to collect data to perform a sequential mediation model to examine the relationship between certification pathway and likelihood to stay in the profession, utilizing self-efficacy and burnout as mediators. The theoretical framework guiding this theory was social cognitive theory, using it to examine the role it can have on teachers and how it may influence the classroom environment to include behavior management and student achievement (Bandura (1977, 1997). Over time, the application of Bandura's Social Cognitive Theory (SCT) to evaluate teacher efficacy has evolved due to substantial research conducted on this topic. Efficacy is considered crucial for individuals to succeed both in their professional and personal lives (Mintz, 2018; Wang et al., 2022; Zhang et

al., 2013). The way one considers oneself holds significant value in several parts of life. Educator beliefs are based on an individual's view of their own competence in carrying out particular abilities or activities, regardless of the result (Tschannen-Moran & Hoy, 2001). Teacher self-efficacy, as conceptualized within Bandura's social learning and cognitive theories, exerts a substantial influence on teachers' instructional strategies, ability to overcome difficulties, contentment with their profession, and the academic achievements of their students. It can be cultivated by the acquisition of expertise, observation of others' experiences, persuasive communication, and regulation of emotional states (Lazarides & Warner, 2020).

Findings

The research questions were written in a way that allowed me to start small with descriptive analyses and work my way up to the more complex mediation model. With frequencies reported in the preliminary analyses, I could get straight to the topic at hand. Below, each research question will be discussed individually and as a comprehensive group altogether.

Research question 1. Research question 1 explored how teachers' certification pathway impacted their self-efficacy in the profession. There were no findings of statistical significance to corroborate this assumption within our data.

Research question 2. Research question 2 examined if teachers' certification pathway impacted their level of burnout. Certification pathway is not statistically significant to burnout, suggesting that certification pathway does not have a significant effect on burnout.

Research question 3. Research question 3 asked if teachers' certification pathway predicted their likelihood to leave the profession. Results show that job satisfaction is also not statistically significant, suggesting that certification pathway does not predict the likelihood to leave the profession.

Research question 4. Research questions 4 focused on self-efficacy as a mediator on certification pathway in relation to intention to leave the profession. No statistical significance was found to support self-efficacy as a mediator between certification pathway and likelihood to leave. There was statistical significance in the path between burnout and intention to leave.

Research question 5. Research question 5 focused on burnout as a mediator on certification pathway in relation to intention to leave the profession. There was no statistical significance associated with burnout as a mediator of certification pathway and intention.

Limitations

While the study contributes to our understanding of special education teacher efficacy and burnout, limitations include but are not limited to sample size, geographic locale, self-report measures, and survey design. In this study, only one of the factors that contribute to likelihood to leave the profession was examined. A study examining the additional factors that boost self-efficacy ought to be considered. Only one state was included in the sample size. To gain a more realistic picture of potential solutions, future research might perform a broad study involving several states.

Although survey design was most feasible for this study, it is limited in responses by elements such as binary questions and Likert-type scales that may not allow a special educator to paint the most accurate picture of the problem or allow a participant to elaborate on an answer and can leave a participant choosing a response that they do not entirely agree with. A mixed methods approach to a study may reveal a more in-depth look at the rationale teachers have when making the decision to leave or stay in special education. Although the study was unable to predict efficacy, the data does show that it predicts burnout from certification pathway. Quality of teacher preparation was not examined through the questions in the survey. In theory,

traditionally certified special education teachers who have receive formal training could have higher self-efficacy, but the survey was not created with quality of the training in mind rather just the completion of the program.

Future Research

Future study should explore the generalizability of findings across other contexts, the impact of school-level factors (e.g., administrative support, resources) on teacher efficacy and exhaustion, and the precise components that influence efficacy and burnout. Higher education can use the findings of this study to inform their preparation programs. Even alternatively credentialed educators must meet academic requirements in higher education. Providing support and resources to teachers early and often will increase their stability and confidence. This can boost their self-efficacy and lead to better retention in the classroom. Changing the pathway that educators select before entering classroom is unrealistic, but once they are in the building, administrators must get creative in ways to build self-efficacy while helping special educators balance job responsibilities to ensure that the workload does not also become part of the problem. This challenge must be met head on by all stakeholders. Existing research has challenged administration to problem solve a solution that would increase self-efficacy as well as student outcomes (Klassen & Chiu, 2010; Skaalvik & Skaalvik, 2009).

Recommendations for Administrators

To support school administrators in retaining special education teachers on campus, the following approaches can be helpful. These ideas are based on the previously presented findings. These are only recommendations; there is no universally applicable solution that addresses all educational systems in the United States. The three recommendations are as follows: 1. Improve and strengthen programs aimed at developing professional skills and providing guidance and

support to special educators, 2. Minimize Administrative Workload, and 3. Cultivate a constructive and encouraging work atmosphere. Through the implementation of these measures, school administrators have the ability to establish a work climate that is more friendly and sustainable for special education instructors, ultimately leading to a notable enhancement in retention rates.

Professional Development and Mentorship

Provide ongoing professional development opportunities that are tailored to the specific needs of special education instructors. Classroom management, instructional methodologies, including appropriate adjustments and modifications, and legal compliance should all be given priority. Furthermore, mentorship programs should be implemented to connect newly recruited special education instructors with experienced mentors who can offer guidance, support, and practical assistance. This program helps beginner educators gain confidence and feel encouraged in their roles. Mentorship sessions should be held on a regular basis with set goals and objectives that align with the roles and responsibilities of newly hired special educators. If possible, the mentorship program should last a minimum of two years; this extended timeframe will ensure that novice teachers have a consistent and comprehensive training experience, while also receiving assistance in fostering a sense of support and community within their campus.

Another option to consider is the use of Professional Learning Communities (PLC). Encourage participation in PLCs, where special education teachers can actively connect, share materials, and discuss best practices. This encourages a sense of community and collaborative problem-solving. In rural areas, these suggestions may be harder to implement. Educators in rural parts of the state may be one of the only, if not the only one in their position which

complicates the availability to PLC with peers in similar specializations. Administrators may want to visit the idea of district or co-op wide PLC times for educators.

Administrative Workload

Streamline procedures; Optimize and enhance the procedure for creating and managing Individualized Education Programs (IEPs). Offering sufficient administrative assistance can enable educators to dedicate more attention to instruction and less on paperwork. Recruit supplementary personnel, such as paraprofessionals and administrative assistants, to aid in handling the burden. This can mitigate certain administrative burdens and enable teachers to focus on instructing and engaging with pupils. Utilize technology to streamline and simplify administrative procedures. Special education management tools and software can streamline administrative tasks, minimizing the amount of time teachers need to spend on paperwork and enhancing overall productivity.

Work Environment

Regularly acknowledge and celebrate the contributions of special education teachers. Recognition programs, awards, and public acknowledgments can boost morale and show teachers that their work is valued. It is possible to enhance morale and demonstrate to teachers that their work is valued through the use of recognition programs, prizes, and public acknowledgments. Make sure that school administrators are approachable and friendly. This is an essential component of supportive leadership. Additionally, administrators should make it a habit to check in with teachers of special education on a frequent basis, listen to their concerns, and give the resources and assistance that are required. Encourage a healthy work-life balance by being cognizant of the burdens that teachers have and by encouraging time for self-care and

personal well-being. Also contributing to the reduction of stress and the prevention of burnout is the provision of access to wellness programs and resources.

Conclusion

At what time and how do teachers begin to build self-efficacy? Aspiring educators begin their training in a preparatory program of their choice. Specialized educational programs, which include substantial study and practical training, allow aspiring teachers to gain competency before they begin teaching. In contrast, instructors who are not adequately prepared do not begin their preparation until they are in the classroom, forcing them to make up for lost time while working. These educators are accountable for obtaining resources in a graduate school setting while also performing everyday duties as a general or special education teacher.

The field of special education can help with teacher retention by providing teachers with the necessary support and skills to succeed in their responsibilities. Special education programs can establish a healthy work environment for teachers by investing in their professional development and wellbeing. Special education programs can boost teacher morale and motivation, resulting in increased job satisfaction and retention rates. This is accomplished by demonstrating to teachers that their contributions of work and dedication are valued.

Establishing a culture of gratitude and respect, which promotes teacher retention and allows them to have a long-term beneficial impact on their students' lives, is possible through special education programs that prioritize providing support and recognition to educators. Evaluating the effectiveness of these alternative certification programs is critical, particularly in the field of special education. Despite an increase in the number of such programs, their influence on teacher retention, readiness, and student results has not effectively addressed the issue of teacher retention in education.

The primary goal is to educate and retain highly qualified special education teachers in the classroom. Research findings on the efficacy of traditional and alternative certification programs can help to develop more efficient and comprehensive teacher training programs, ensuring that educators are well-equipped to meet the unique needs of children with disabilities. The departure of teachers, particularly in specialized disciplines such as special education, poses a substantial challenge for school systems. Gaining insight into the elements that contribute to attrition is an important first step.

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Appendices

Appendix A

IRB Outcome Letter

The UNIVERSITY of OKLAHOMA

Institutional Review Board for the Protection of Human Subjects

Approval of Study Modification – Expedited Review – AP0

Date: May 08, 2024 **IRB#:** 17104

Principal Investigator: Fanee R Webster **Reference No: 762153**

Study Title: Survey for In-Service Teachers in K-12 Public Schools

Approval Date: 05/08/2024

Modification Description: Survey update 4-30-24

The review and approval of this submission is based on the determination that the study, as amended, will continue to be conducted in a manner consistent with the requirements of 45 CFR 46.

To view the approved documents for this submission, open this study from the My Studies option, go to Submission History, go to Completed Submissions tab and then click the Details icon.

If the consent form(s) were revised as a part of this modification, discontinue use of all previous versions of the consent form.

If you have questions about this notification or using iRIS, contact the HRPP office at (405) 325-8110 or irb@ou.edu. The HRPP Administrator assigned for this submission: Kat L Braswell.

Cordially,

Lara Mayeux

Lara Mayeux, Ph.D.
Chair, Institutional Review Board

Appendix B

License to Administer the MBI-ES

For use by Fanee Webster only. Received from Mind Garden, Inc. on April 30, 2024
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Maslach Burnout Inventory™

MBI Forms and Scoring Keys:

Human Services - MBI-HSS
Medical Personnel - MBI-HSS (MP)
Educators - MBI-ES
General - MBI-GS
Students - MBI-GS (S)

License to Administer

By Christina Maslach, Susan E. Jackson, Michael P. Leiter,
Wilmar B. Schaufeli & Richard L. Schwab

Published by Mind Garden, Inc.
www.mindgarden.com

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Appendix C

Recruitment Letter

Would you like to participate in a survey measuring teacher self-efficacy?

I am Fanee Webster, a graduate student from the Educational Psychology Department at The University of Oklahoma and I want to invite you to participate in my research study entitled, **Alternative Paths, Unconventional Strengths: The Influence of Self-Efficacy on Retention Rates Among K-12 Special Educators in the State of Oklahoma.**

You were selected as a possible participant because of your current teaching position in the state of Oklahoma. You must be at least 18 years of age to participate in this study.

The purpose of this study is to investigate how self-efficacy can influence the chance of retention in the field of education for K-12 public school special education teachers.

Participation in the survey should take about 15-25 minutes to complete. Once the survey is complete, you will have the option of entering a raffle for $25 amazon gift cards; 20 gift cards will be disbursed via email. Participation in this research is completely voluntary. You can terminate your participation at any time without question or comment.

This research has been reviewed and approved by the University Oklahoma Institutional Review Board for Human Subjects Protection (IRB). If you have any questions about your rights as a participant, or if you feel that your rights as a participant were not adequately met by the researcher, please contact the IRB at (405) 325-8110 or irb@ou.edu.

If you are interested in completing the survey, please use **this link.**

Appendix D

In-Service Teacher Survey from Qualtrics

I. Informed Consent

Consent to Participate in Research
University of Oklahoma

Would you like to be involved in research at the University of Oklahoma?
My name is am Fanee Webster from the Jeanine Rainbolt College of Education, and I invite you to participate in my research entitled **Alternative Paths, Unconventional Strengths: The Influence of Self-Efficacy on Retention Rates Among K-12 Special Educators in the State of Oklahoma**

You were selected as a possible participant because you are a current teacher in the state of Oklahoma. You must be at least 18 years of age to participate in this research.

Please read this document and contact me to ask any questions you may have BEFORE agreeing to participate in my research.

What is the purpose of this research? The purpose of this study is to investigate how self-efficacy can influence the chance of retention in the field of education for K-12 public school special education teachers.

How many participants will be in this research? 250 people will take part in this research.

What will I be asked to do? If you agree to be in this research, you will complete a 15 – 25 minute online survey.

What are the risks and benefits if I participate?
Collection of demographic or geographic location data that could lead to deductive re-identification: You will be asked to provide demographic information that describes you. We may also gather information about your geographic location in this research. Different combinations of personal and geographic information may make it possible for your identity to be guessed by someone who was given, or gained access, to our research records. To minimize the risk of deductive re-identification, we will not combine identifying variables nor analyze and report results for small groups of people with specific demographic characteristics.

Data collected online: The organization hosting the data collection platform has its own privacy and security policies for keeping your information confidential. There is a risk that the external organization, which is not part of the research team, may gain access to or retain your data or your IP address which could be used to re-identify you. No assurance can be made as to their use of the data you provide for purposes other than this research.

All survey responses received will be treated confidentially and stored on a secure server. However, given that the surveys can be completed from any computer (e.g., personal, work, school), there is no guarantee of the security of the computer on which you choose to enter your responses. As a participant in this study, please be aware that certain technologies exist that can be used to monitor or record data and/or websites that are visited.



IRB NUMBER: 17104
IRB APPROVAL DATE: 05/08/2024

II. Informed Consent cont.

Will I be compensated for participating? Completion of the survey will prompt participants with the opportunity to enter a separate survey link where they can enter their email address to be entered into a raffle for $25 Amazon gift cards. There are 20 gift cards that will be disbursed within 30 days once the survey closes.

Who will see my information? There will be no information in research reports that will make it possible to identify you. Research records will be stored securely, and only approved researchers and the OU Institutional Review Board will have access to the records.

Do I have to participate? No. If you do not participate, you will not be penalized or lose benefits or services unrelated to the research. If you decide to participate, you don't have to answer any questions and can stop participating at any time.

Will my identity be anonymous or confidential? Your name will not be retained or linked with your responses. Additionally, IP addresses will not be collected with your responses.

What will happen to my data in the future? We might use your de-identified data in future research without obtaining additional consent from you.

Who do I contact with questions, concerns, or complaints? If you have questions, concerns, or complaints about the research or have experienced a research-related injury, contact Corey Peltier at cpeltier@ou.edu or 405-325-2221.
You can also contact the University of Oklahoma – Norman Campus Institutional Review Board (OU-NC IRB) at 405-325-8110 or irb@ou.edu if you have questions about your rights as a research participant, concerns, or complaints about the research and wish to talk to someone other than the researcher(s) or if you cannot reach the researcher(s).

Please print this document for your records. By providing information to the researcher(s), I am agreeing to participate in this research.

Are you 18 years of age or older? ___ Yes ___ No (If no- cannot participate)

Are you a current teacher in the state of Oklahoma ___ Yes ___ No (If no–cannot participate)

IRB #_____ IRB Approval Date_____



IRB NUMBER: 17104
IRB APPROVAL DATE: 05/08/2024

III. Informed Consent cont.

	No	Yes
Are you 18 years of age or older?	○	○
Are you a current teacher in the state of Oklahoma?	○	○

IV. I have read this form, been given the chance to ask questions and have my questions answered. If I have more questions, I have been told who to contact. By selecting "I Agree" below, I am providing my signature by electronic means and agree to be in this study. I can print or save a copy of this consent information for future reference. If I do not want to be in this study, I can select "I Do Not Agree" to exit out of the survey.

○ I agree to participate

○ I do not agree to participate

V. Please confirm you are a human.

VI. Please indicate your primary teaching specialization.

○ General Education Teacher

○ Special Education Teacher

○ Specialization not listed

Race (Select all that apply)

- [ ] American Indian/Alaska Native
- [ ] Asian
- [ ] Black or African American
- [ ] Native Hawaiian and Other Pacific Islander
- [ ] White
- [ ] Prefer not to say

Ethnicity

- ○ Hispanic or LatinX
- ○ Not Hispanic or LatinX

Gender Identity

- ○ Male
- ○ Female
- ○ Non-binary / Non-conforming
- ○ Prefer not to stay

Age

_____

Select the range of your current salary.

- ○ under $35,000
- ○ $35,000 - $50,000
- ○ $50,000 - $65,000
- ○ $65,000 - $80,000
- ○ $80,000 - $95,000
- ○ $95,000 or more

What is the highest level of education you've completed?

- ○ Some college, but no degree
- ○ Associate's Degree
- ○ Bachelor's Degree
- ○ Master's Degree
- ○ Ed.D, Ph.D, or higher
- ○ Other _____

What is the certification pathway you completed to obtain your **original** teaching licensure?

- ○ Adjunct
- ○ Alternative
- ○ Emergency
- ○ Teach for America
- ○ Traditional Teacher Preparation Program
- ○ Troops to Teachers
- ○ Other, please specify _____

How long have you taught in the classroom? Please include this year in your calculations.

_____

How many different types of teaching positions, have you had in your career? Please include this year in your answer.

Ex. Switching from 2nd to 3rd

Ex. Switching from co-teaching to resource setting

Ex. Switching from Self-contained to co-teaching

_____

In what school district are you currently employed?

_____

What is the largest time allocation of your current teaching position?

- ○ Co-teaching
- ○ Resource/Lab
- ○ Self-Contained

What content areas do you currently teach? Select all that apply.

- ☐ Math
- ☐ English
- ☐ Science
- ☐ Social Studies
- ☐ Other, please specify _____

I am interested in your opinion on your current role in education. Please indicate to what extent each statement describes you in your current teaching position.

I am satisfied with my current teaching position.

- ○ Strongly disagree
- ○ Somewhat disagree
- ○ Neither agree nor disagree
- ○ Somewhat agree
- ○ Strongly agree

I intend to leave the field of education in the next year.

- ○ Strongly disagree
- ○ Somewhat disagree
- ○ Neither agree nor disagree
- ○ Somewhat agree
- ○ Strongly agree

I intend to leave the field of education in the next 3 years.

- ○ Strongly disagree
- ○ Somewhat disagree
- ○ Neither agree nor disagree
- ○ Somewhat agree
- ○ Strongly agree

I intend to leave the field of education in the next 5 years.

- ○ Strongly disagree
- ○ Somewhat disagree
- ○ Neither agree nor disagree
- ○ Somewhat agree
- ○ Strongly agree

How likely are you to leave your **current** teaching position?

- ○ Strongly disagree
- ○ Somewhat disagree
- ○ Neither agree nor disagree
- ○ Somewhat agree
- ○ Strongly agree

If you were to leave your current leave your current position, what would you do?

- ○ A teaching position at a different school
- ○ A position in a different grade
- ○ Moving to leadership role (instructional coach, district level position, administrator)
- ○ Job out of the field of education
- ○ Leave the working profession entirely (family obligations, illness or other responsibilities)
- ○ Retirement
- ○ Other, please specify _____

Special Education Efficacy Scale (SEES-I)

The following statements represent a proposed skill set for special educators.

Please indicate your level of confidence in your current teaching position for each of the statements by choosing a response from (0) Strongly Disagree to (10) Strongly Agree. The purpose of this information is research-related and may be used to assess and design program requirements. **Your responses are appreciated and will remain anonymous.**

SEES-I

I can support struggling students

0 1 2 3 4 5 6 7 8 9 10

I can plan instruction to address the linguistic and cultural characteristics of English language learners (ELL) with disabilities.

0 1 2 3 4 5 6 7 8 9 10

I can motivate reluctant learners.

0 1 2 3 4 5 6 7 8 9 10

I can promote cooperative learning.

0 1 2 3 4 5 6 7 8 9 10

I can overcome adverse situations that impede student learning.

0 1 2 3 4 5 6 7 8 9 10

I can use functional behavioral assessment (FBA) procedures to determine the reasons for inappropriate behaviors displayed by students with severe cognitive and communicative disabilities.

0 1 2 3 4 5 6 7 8 9 10

I can create a behavior intervention plan (BIP).

0 1 2 3 4 5 6 7 8 9 10

I can facilitate the inclusion of my students in general education settings by collaborating with general education teachers.

0 1 2 3 4 5 6 7 8 9 10

I can redirect disruptive behaviors.

0 1 2 3 4 5 6 7 8 9 10

I can make accommodations and modify curriculum based on students' needs.

0 1 2 3 4 5 6 7 8 9 10

I can use a variety of assessments to determine the academic needs of my students.

0 1 2 3 4 5 6 7 8 9 10

I can keep students engaged and on task.

0 1 2 3 4 5 6 7 8 9 10

I can record frequency data for behavior intervention plans (BIP).

0 1 2 3 4 5 6 7 8 9 10

I can facilitate an individualized education program (IEP) annual review meeting.

0 1 2 3 4 5 6 7 8 9 10

I can use assessment data to create short-term behavioral objectives/benchmarks.

0 1 2 3 4 5 6 7 8 9 10

I can collaborate with all members of the IEP team to develop appropriate individualized annual goals.

0 1 2 3 4 5 6 7 8 9 10

I can differentiate instruction to meet the diverse needs of my students.

0 1 2 3 4 5 6 7 8 9 10

I can complete the required IEP paperwork.

0 1 2 3 4 5 6 7 8 9 10

I can use a variety of strategies to reach students with disabilities.

0 1 2 3 4 5 6 7 8 9 10

I can create a transition plan for students with disabilities as they prepare for secondary education.

0 1 2 3 4 5 6 7 8 9 10

I can use assistive technology devices to support communication, learning, and improved functional capabilities of individuals with disabilities.

0 1 2 3 4 5 6 7 8 9 10

I am aware of special education mandates, policies, and procedures.

0 1 2 3 4 5 6 7 8 9 10

I can develop supportive partnerships with families.

0 1 2 3 4 5 6 7 8 9 10

MBI for Educators Survey

Please read each statement carefully and decide if you ever feel this way about your job. If you have never had this feeling, write the number "0" (zero) in the space before the statement. If you

have had this feeling, indicate how often you feel it by writing the number (from 1 to 6) that best describes how frequently you feel that way. An example is shown below.

Example

If you never feel depressed at work, you would write the number "0" (zero) under the heading "How often." If you rarely feel depressed at work (a few times a year or less), you would write the number "1." If your feelings of depression are fairly frequent (a few times a week but not daily), you would write the number "5."

I feel emotionally drained from my work.

Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day
0	1	2	3	4	5	6

How Often?	

I feel used up at the end of the workday.

Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day
0	1	2	3	4	5	6

How Often?	

I feel fatigued when I get up in the morning and have to face another day on the job.

Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day
0	1	2	3	4	5	6

How Often?	

I can easily understand how my students feel about things.

Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day
0	1	2	3	4	5	6

How Often?	

I feel I treat some students as if they were impersonal objects.

Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day
0	1	2	3	4	5	6

How Often?	

Working with people all day is really a strain for me.

Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day
0	1	2	3	4	5	6

How Often?	

I deal very effectively with the problems of my students.

Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day
0	1	2	3	4	5	6

How Often?	

I feel burned out from my work.

Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day
0	1	2	3	4	5	6

How Often?	

I feel I'm positively influencing other people's lives through my work.

Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day
0	1	2	3	4	5	6

How Often?

I've become more callous toward people since I took this job.

Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day
0	1	2	3	4	5	6

How Often?

I worry that this job is hardening me emotionally.

Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day
0	1	2	3	4	5	6

How Often?

I feel very energetic.

Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day
0	1	2	3	4	5	6

How Often?

I feel frustrated by my job.

Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day
0	1	2	3	4	5	6

How Often?

I feel I'm working too hard on my job.

Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day
0	1	2	3	4	5	6

How Often?

I don't really care what happens to some students.

Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day
0	1	2	3	4	5	6

How Often?	

Working with people directly puts too much stress on me.

Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day
0	1	2	3	4	5	6

How Often?	

I can easily create a relaxed atmosphere with my students.

Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day
0	1	2	3	4	5	6

How Often?	

I feel exhilarated after working closely with my students.

Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day
0	1	2	3	4	5	6

How Often?

I have accomplished many worthwhile things in this job.

Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day
0	1	2	3	4	5	6

How Often?

I feel like I'm at the end of my rope.

Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day
0	1	2	3	4	5	6

How Often?

In my work, I deal with emotional problems very calmly.

Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day
0	1	2	3	4	5	6

How Often?

I feel students blame me for some of their problems.

Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day
0	1	2	3	4	5	6

How Often?

What type of device was the survey completed on?

- ○ Desktop/PC
- ○ Cell Phone
- ○ Tablet
- ○ Laptop

Would you like to be entered into the raffle for an Amazon gift card. Your responses will still remain anonymous!

- ○ No
- ○ Yes

End of Block: Device and Thank you

Appendix E

Raffle Survey

For consideration in the drawing, please enter your information below.

Email Address

Thank you so much for your participation in the survey! Winners of the drawing will be notified via email within 30 days of the survey closing.

Appendix F

Factor Loadings for Pre-Service Special Educator Efficacy Scale (SEES-I)

Learner development and learner differences

7	I can create a behavior intervention plan (BIP).
8	I can facilitate the inclusion of my students in general education settings by collaborating with general education teachers.
11	I can use a variety of assessments to determine the academic needs of my students.
14	I can facilitate an individualized education program (IEP) annual review meeting.
15	I can use assessment data to create short term behavioral objectives/benchmarks.
16	I can collaborate with all members of the IEP team to develop appropriate individualized annual goals.
18	I can complete the required IEP paperwork.
20	I can create a transition plan for students with disabilities as they prepare for secondary education.
22	I am aware of special education mandates, policies, and procedures.
23	I can develop supportive partnerships with families.

Instruction and strategies

1	I can support struggling students.
2	I can plan instruction to address the linguistic and cultural characteristics of English language learners (ELL) with disabilities.
3	I can motivate reluctant learners.
4	I can promote cooperative learning.
5	I can overcome adverse situations that impede student learning.
9	I can redirect disruptive behaviors.

Curriculum content and planning

6	I can use functional behavioral assessment (FBA) procedures to determine the reasons for inappropriate behaviors displayed by students with severe cognitive and communicative disabilities.
10	I can make accommodations and modify curriculum based on students' needs.
12	I can keep students engaged and on task.

13	I can record frequency data for behavior intervention plans (BIP).
17	I can differentiate instruction to meet the diverse needs of my students.
19	I can use a variety of strategies to reach students with disabilities.
21	I can use assistive technology devices to support communication, learning, and improved functional capabilities of individuals with disabilities.

Appendix G

Factor loadings for the Maslach Burnout Inventory for Educators (MBI-ES)

Emotional Exhaustion (EE)

1	I feel emotionally drained from my work.
2	I feel used up at the end of the workday.
3	I feel fatigued when I get up in the morning and have to face another day on the job.
6	Working with people all day is really a strain for me.
8	I feel burned out from my work.
13	I feel frustrated by my job.
14	I feel I'm working too hard on my job.
16	Working with people directly puts too much stress on me.
20	I feel like I'm at the end of my rope.

Depersonalization (DP)

5	I feel I treat some students as if they were impersonal objects.
10	I've become more callous toward people since I took this job.
11	I worry that this job is hardening me emotionally.
15	I don't really care what happens to some students.
22	I feel students blame me for some of their problems.

Personal Accomplishment (PA)

4	I can easily understand how my students feel about things.
7	I deal very effectively with the problems of my students.
9	I feel I'm positively influencing other people's lives through my work.
12	I feel very energetic.
17	I can easily create a relaxed atmosphere with my students.
18	I feel exhilarated after working closely with my students.
19	I have accomplished many worthwhile things in this job.
21	In my work, I deal with emotional problems very calmly.

Appendix H

Pre-Service Special Educator Efficacy Scale (SEES-I)

Directions: This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinion about each of the statements below. Your answers are confidential.

Survey responses are based on a scale ranging from (0) Strongly disagree to (10) Strongly agree.

Strongly Disagree **Moderately Agree** **Strongly Agree**

0 1 2 3 4 5 6 7 8 9 10

#	Teacher Beliefs	How Much Can You Do? (10-point Likert scale)										
1	I can support struggling students.	0	1	2	3	4	5	6	7	8	9	10
2	I can plan instruction to address the linguistic and cultural characteristics of English language learners (ELL) with disabilities.	0	1	2	3	4	5	6	7	8	9	10
3	I can motivate reluctant learners.	0	1	2	3	4	5	6	7	8	9	10
4	I can promote cooperative learning.	0	1	2	3	4	5	6	7	8	9	10
5	I can overcome adverse situations that impede student learning.	0	1	2	3	4	5	6	7	8	9	10
6	I can use functional behavioral assessment (FBA) procedures to determine the reasons for inappropriate behaviors displayed by students with severe cognitive and communicative disabilities.	0	1	2	3	4	5	6	7	8	9	10
7	I can create a behavior intervention plan (BIP).	0	1	2	3	4	5	6	7	8	9	10
8	I can facilitate the inclusion of my students in general education settings by collaborating with general education teachers.	0	1	2	3	4	5	6	7	8	9	10
9	I can redirect disruptive behaviors.	0	1	2	3	4	5	6	7	8	9	10
10	I can make accommodations and modify curriculum based on students' needs.	0	1	2	3	4	5	6	7	8	9	10
11	I can use a variety of assessments to determine the academic needs of my students.	0	1	2	3	4	5	6	7	8	9	10

12	I can keep students engaged and on task.	0	1	2	3	4	5	6	7	8	9	10
13	I can record frequency data for behavior intervention plans (BIP).	0	1	2	3	4	5	6	7	8	9	10
14	I can facilitate an individualized education program (IEP) annual review meeting.	0	1	2	3	4	5	6	7	8	9	10
15	I can use assessment data to create short term behavioral objectives/benchmarks.	0	1	2	3	4	5	6	7	8	9	10
16	I can collaborate with all members of the IEP team to develop appropriate individualized annual goals.	0	1	2	3	4	5	6	7	8	9	10
17	I can differentiate instruction to meet the diverse needs of my students.	0	1	2	3	4	5	6	7	8	9	10
18	I can complete the required IEP paperwork.	0	1	2	3	4	5	6	7	8	9	10
19	I can use a variety of strategies to reach students with disabilities.	0	1	2	3	4	5	6	7	8	9	10
20	I can create a transition plan for students with disabilities as they prepare for secondary education.	0	1	2	3	4	5	6	7	8	9	10
21	I can use assistive technology devices to support communication, learning, and improved functional capabilities of individuals with disabilities.	0	1	2	3	4	5	6	7	8	9	10
22	I am aware of special education mandates, policies, and procedures.	0	1	2	3	4	5	6	7	8	9	10
23	I can develop supportive partnerships with families.	0	1	2	3	4	5	6	7	8	9	10

Appendix I

Table 1

Versions of the MBI and Samples

Maslach Burnout Forms	Intended Audience	Sample Item
MBI-HSS (MP)	Medical Personnel	I don't really care what happens to some patients.
MBI-HSS	Human Services Workers	I don't really care what happens to some recipients.
MBI-ES	**Educators**	**I don't really care what happens to some students.**
MBI-GS	General Use	I doubt the significance of my work.
MBI-GS (S)	Students	I doubt the significance of my studies.

Appendix J

Table 2

Working conditions validated using MBI-ES

Student misbehavior	Fernet et al. (2012)
	Hoglund et al. (2015)
	Lambert et al. (2009)
Increase in students with disabilities	Lambert et al. (2009)
Diminished student outcomes	Byrne (1994)
	Hoglund et al. (2015)
Changes in principal's leadership behavior	Fernet et al. (2012)
	Koustelios & Tsigilis (2005)
Work setting/Work Overload	Astrauskaite et al. (2010)
	Byrne (1994)
	Koustelios & Tsigilis (2005)
Social support from peers	Astrauskaite et al. (2010)
	Byrne (1994)
Classroom climate	Byrne (1994)
	Hoglund et al. (2015)

Appendix K

Table 3

Reliability Estimates for MBI-ES

	EE	**DP**	**PA**
Iwanicki & Schwab (1981)	.90	.76	.76
Gold (1984)	.88	.74	.72
Kokkinos (2006)	.85	.63	.79
Chang (2013)	.87	.76	.84

Appendix L

Table 4

Correlation results for research questions 3, 4, & 5

Correlations

		Cert Path	Efficacy	Burnout	Intent
Cert Path	Pearson Correlation	1	-.151*	.094	.037
			p=.018	p=.101	p=.305
Efficacy	Pearson Correlation	-.151*	1	-.227**	-.039
		p=.018		p=<.001	p=.294
Burnout	Pearson Correlation	.094	-.227**	1	.441**
		p=.101	p=<.001		p=<.001
Intention to Leave	Pearson Correlation	.037	-.039	.441**	1
		p=.305	p=.294	p=<.001	

*. Correlation is significant at the 0.05 level (1-tailed).

**. Correlation is significant at the 0.01 level (1-tailed).

Appendix M

Table 6

Descriptive Statistics for independent and dependent variables

		gen	age	sal	edu	cert	exp	allo	intent	eff	burn	device
N	Valid	197	196	197	197	197	197	197	197	197	197	197
	Missing	0	1	0	0	0	0	0	0	0	0	0
Mean		1.92	47.62	2.83	3.65	3.78	15.64	2.24	9.58	194.16	71.92	2.69
Std. Dev.		.334	10.707	.891	.548	1.453	24.788	.640	4.658	22.378	15.028	1.313

Abbreviations

gen	gender
sal	salary
edu	highest education level completed
cert	certification pathway
exp	experience (years)
allo	time allocation
intent	intention to leave
eff	self-efficacy
burn	burnout

Appendix N

Table 7

Regression Equation Results

Predictors	b	SEb	β	
Eq 1: Predicting Efficacy				R-square=.1151, F=4.9417, p=.0003
Certification Pathway	.7389	1.0923	.0478	
Age	.3370*	.1519	.1608	
Salary	6.3856**	1.8784	.2541	
Highest Education Level Achieved	-.0579	2.9514	-.0014	
Experience	-.0106	.0672	-.0117	
Eq 2: Predicting Burnout				R-square=.0333, F=1.0852, p=.3728
Certification Pathway	1.0993	.7605	.1071	
Efficacy	-.0284	.0505	-.0428	
Age	-.1551	.1070	-.1115	
Salary	-.7671	1.3455	-.0460	
Highest Education Level Achieved	1.7198	2.0525	.0634	
Experience	-.0292	.0467	-.0487	
Eq 3: Predicting Intention to Leave				R-square=.1618, F=5.1842, p=.0000
Certification Pathway	.0545	.2216	.0171	
Efficacy	-.0284*	.0146	-.1380	
Burnout	.1144***	.0211	.3686	
Age	.0229	.0312	.0530	
Salary	.3091	.3902	.0597	
Highest Education Level Achieved	.5100	.5958	.0606	
Experience	-.0060	.0136	-.0322	

Note: ***p<.001, **p<.01, *p<.05