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AN EXAMINATION OF BACKGROUND, PERSONALITY, AND JOB-RELATED CHARACTERISTICS AMONG TRADITIONALLY, ALTERNATIVELY, AND EMERGENCY CERTIFIED NOVICE TEACHERS IN OKLAHOMA

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Nicolette Carrell Dennis
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AN EXAMINATION OF BACKGROUND, PERSONALITY, AND JOB-RELATED CHARACTERISTICS AMONG TRADITIONALLY, ALTERNATIVELY, AND EMERGENCY CERTIFIED NOVICE TEACHERS IN OKLAHOMA

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THE DEPARTMENT OF EDUCATIONAL LEADERSHIP AND POLICY STUDIES

BY THE COMMITTEE CONSISTING OF

Chair Dr. Timothy Ford

Dr. Curt Adams

Dr. Beverly Edwards

Dr. Rodger Randle

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Dedication

I stand upon the shoulders of so many who have influenced my life. There are a few people, however, I want to thank:

- My grandparents came to America to seek their fortune and consistently whispered in my ear the value of education and the opportunities afforded to me in America.
- To my Grandma Connie and my mother, who encouraged me to continue my progress toward my doctorate after I raised my family.
- To Dr. Randle, who said I could.
- To Dr. Ford, who constantly reminded me that I would complete this paper even if I did not think I could.
- And, finally, to my husband, Glen, who has always supported my quest for learning and never stopped encouraging me to finish this damn paper, even when I felt discouraged and unmotivated,

Thank you all for your encouragement and for recognizing my deep desire to finish what I started in 1962 on my first day of elementary school. I am proof that one gets better with age.

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Abstract

Only a few studies have compared traditionally and nontraditionally certified teachers. This exploratory study examined the differences among emergency, alternative, and traditionally trained teachers who were new to an urban Midwestern school district. Hiring alternative and emergency certified teachers has become a standard solution for districts and school leaders in all 50 states to address significant teacher shortages. The purpose of this study was to investigate differences in background, personality, and job-related characteristics such as teaching knowledge, grit, self-efficacy, and job satisfaction by certification type, as well as the moderation of the relationship between these characteristics and job satisfaction by certification type. Following approval from the Institutional Review Board (IRB), a survey was distributed to the email addresses of 58,733 certified teachers employed in public schools within Oklahoma. After removing duplicates and excluding responses from non-teachers and those with more than three years of experience, the final data set comprised 556 responses from teachers with one to three years of classroom experience, gathered in the summer of 2022. Many of the participants began their careers in the Fall of 2019, with many most likely having spent their first two years teaching during the COVID-19 pandemic.

Analysis revealed that emergency and alternative certification pathways showed significant moderation of the relationship of job satisfaction with teaching knowledge, with emergency pathways being highly significant ($p < .01$) and alternative pathways moderately significant ($p < .05$). Job satisfaction for alternatively certified teachers was significantly lower than the other two certification types ($p < .05$). Grit was significantly higher for alternatively certified teachers ($p < .05$). At the same time, Big 5 Emotional Stability demonstrated a highly significant positive connection for emergency certified teachers ($p < .01$).

Self-efficacy in student engagement showed a positive correlation for alternatively certified teachers ($p < .01$). In contrast, self-efficacy in classroom management was positively correlated for both traditionally ($p < .05$) and alternatively ($p < .01$) trained teachers. FIT-Choice Perceived Ability and Job Transferability showed positive correlations for traditionally trained teachers ($p < .05$ and $p < .01$, respectively). FIT-Choice Social Equity and Job Transferability showed positive connections for alternatively trained teachers ($p < .05$ and $p < .01$, respectively). FIT-Choice Fallback Career had a negative correlation for emergency certified teachers ($p < .05$). One of the most intriguing findings was the relationship between job satisfaction and familial obligations, such as parenting or caregiving. This study's findings offer numerous paths for further research into the factors influencing teacher job satisfaction and effectiveness based on certification pathways.

Chapter 1: Introduction

Since the publication of *A Nation at Risk* (1983), politicians, news reporters, and some members of the community have been discrediting public schools for various ills, from allegations that they teach a secret curriculum indoctrinating students in a "woke" ideology to concerns about student safety and bullying. Likewise, politicians and the public have equally discredited university educational programs for "inadequately preparing the nation's teachers" (Fuller, 2013, p. 63). The attack on public education has resulted in a steady decline of certified teachers who stay in the field for their entire careers (Cross, 2017; Garcia & Weiss, 2018; Ostroff, 2017; Partelow, 2019; Sutcher et al., 2016). Moreover, in the United States, this ongoing attack on public education has resulted in a decrease in those interested in teaching, which has affected the number of certified teachers looking for work (Nguyen et al., 2022; Partlow, 2019). This trend presents a worldwide concern as many countries face a shortage of qualified teachers (e.g., Gadusova & Predanocyova, 2018; Garcia & Weiss, 2018; Hong, 2012; Ingersoll, 2001; Ingersoll, 2016; Skaalvik & Skaalvik, 2016; Nguyen et al., 2022; Zuzovsky & Donitsa-Schmidt, 2017).

Not surprisingly, finding qualified teachers to replace those retiring and leaving the profession has become a challenge for many hiring managers and education leaders (Allegretto & Mischel, 2018; Partlow, 2019). According to a 2022 report by the American Association of Colleges for Teacher Education (AACTE), traditional education programs recorded a more than one-third drop in enrollment (King & James, 2022). Additionally, degree programs in the highest demand, such as bilingual education, science, math, and special education, saw the steepest decline. Jacqueline King, who co-authored the report, argued that a correlated relationship existed between teacher shortages and the decline in the number of college students enrolled in

teacher education programs: “Decades of stagnant pay, onerous workloads, and political demoralization” certainly have fed this decline, according to King (King & James, 2022). Moreover, between 2016 and 2019, nine states have seen teacher candidate enrollment decrease by 50% or more: Oklahoma (80%), Michigan (67%), Pennsylvania (62%), Delaware (61%), Illinois (60%), Idaho (55%), Indiana (54%), New Mexico (54%), and Rhode Island (51%) (Allegretto & Mischel, 2018; Partlow, 2019).

A recent study found that there are at least 36,500 vacant teaching positions in the country, with 163,000 underqualified individuals filling other teaching roles across the United States. (Nguyen et al., 2022). According to this study, these vacancies represent 1.67% of the vacant teaching positions in public schools; underqualified individuals occupy about 5.16% of the current teaching positions nationally (Nguyen et al., 2022). In fact, since 2012, more states have depended upon emergency certified candidates to fill vacant teaching positions (Garcia & Weiss, 2018).

One only needs to visit Oklahoma to understand the effect budget cuts have had on the educational landscape. Oklahoma, which has led the nation in cuts to education funding over the past decade, has increasingly depended upon emergency certified applicants to fill teacher vacancies (Center on Budget and Policy Priorities, 2018; Farmer, 2017). Oklahoma’s dismal funding issues have resulted in residual effects in the classroom, particularly within the teaching ranks. In January 2024, 4,676 emergency certificates were issued to teachers working in Oklahoma public schools, the most ever issued by the Oklahoma State Department of Education (Martinez-Keel, 2024). Even high-income schools face challenges (Farmer, 2017). Moreover, researchers predict that competition from the private sector and surrounding states poses a

significant threat to ensuring a viable teaching pool in Oklahoma as "projected demand for teachers in Oklahoma will continue to outpace the supply" (OSSBA, 2018, p. 11).

Most recently, the COVID-19 pandemic has had a devasting effect on all aspects of public education, especially teacher retention (American Enterprise Institute, 2020; Kaiser Family Foundation [KFF], 2020; Lachlan et al., 2020; Perry, 2020). During the spring of 2020, the onset of the pandemic and its rapid transmission forced school closures nationally (American Enterprise Institute, 2020; Lachlan et al., 2020).

Reopening schools after the COVID closures proved difficult, especially given that, on average, 25% of principals and 20% of teachers were over 55 (American Enterprise Institute, 2020). Moreover, many teachers under the age of 55 were caring for ailing family members and/or young children (American Enterprise Institute, 2020). Additionally, 75% of the educational workforce under the age of 40 was female, and many of these teachers were looking to start a family (Lachlan et al., 2020).

Deciding who should teach face-to-face and who should work remotely was complicated because teachers are not accustomed to risking their health to perform their instructional duties (Lachlan et al., 2020). District-based and school-based leaders had to make life-and-death decisions as they grappled with who should be allowed to work virtually and who must return to traditional face-to-face classroom instruction. These decisions were even more complex because of ongoing teacher shortages (Lachlan et al., 2020; Nguyen et al., 2022).

To complicate the situation further, school closures in the spring of 2020 forced many school districts to employ virtual learning tools to instruct students remotely (American Enterprise Institute, 2020; Lachlan et al., 2020). Many teachers and school districts needed to prepare to transition from face-to-face to virtual learning. School districts and schools scrambled

to purchase the technology necessary for such learning and struggled to distribute these tools to their students and families to ensure equitable educational opportunities. Moreover, uncertainties about the spread and containment of the virus forced many school districts, especially those serving students in large urban cities, to utilize distance learning for the 2020–2022 academic year. The abrupt move to distance learning further illuminated the critical need for well-prepared educators versed in using distance learning tools.

Statement of the Problem

Qualified teacher candidates are in short supply, and this shortage has forced school districts and individual schools to hire uncertified teachers to fill the ranks (Cardichon et al., 2020; Nguyen et al., 2022). Decades of studies have shown that fully certified, experienced teachers make a difference in student achievement, especially when combined with meaningful, safe, relevant curricula delivered in inclusive learning environments (Sutcher et al., 2016). Still, ensuring all students have equitable access to these high-quality teachers has been a prolonged battle in U.S. schools. Teacher shortages recently have exacerbated these access inequities because these shortages tend to result in the hiring of underprepared teachers, who are typically disproportionately placed in schools serving students of color (Cardichon et al., 2020).

This fact is particularly troubling because the inequitable access to high-quality teachers may substantively explain achievement gaps between students of color and White students. Researchers and educational professionals have speculated that the COVID-19 pandemic intensified the decrease in qualified teachers entering the profession (De La Rosa, 2020). Decreased enrollment in teacher-educator programs, coupled with teachers' reduced interest in remaining in the profession and an increase in teachers considering retirement, has further eroded the qualified teacher candidate pool (Kurtz & Bushweller, 2020; Lardieri, 2020; Perry, 2020).

Furthermore, teacher shortages and the aftermath of COVID-19 have shifted many policies that guide teacher licensure, certification, and hiring practices (American Association of Colleges for Teacher Education, 2020).

Additionally, these policy shifts underscore the significant uncertainty facing educators about these new challenges due to evolving health and safety policies, online instructional shifts, changes in working conditions, and students' increased need for social and emotional support (Lachlan et al., 2020). While an increased need for experienced teachers continues, a strong probability exists that veteran teachers, many of whom are at risk of complications from COVID-19, will leave the profession (KFF, 2020).

Researchers have examined historical and current data and expressed concern that COVID-19 has profoundly affected all students, especially those most vulnerable (Lachlan et al., 2020). Underserved communities have most likely been negatively affected by the forecast and potential downward trends of the workforce. Therefore, the pandemic will only increase the number of students taught by unqualified and uncertified teachers.

The introduction of emergency certified teachers coupled with the onset of the COVID-19 pandemic has brought forth a host of questions that align with the ongoing research about examining the factors influencing an individual's decision to become a teacher (Hill et al., 2019; Kılınç et al., 2012; Richardson & Watt, 2005; Richardson & Watt, 2016; Watt & Richardson, 2007; Watt & Richardson, 2008). Substantial evidence suggests that the underlying reasons that prompt teachers to enter the profession profoundly influence their motivation and commitment to remain in the profession (Ford et al., 2017; Roth, 2014). We have much to learn about how the recent labor market trends have affected the underlying characteristics of teachers attracted to the profession.

Current Study and Significance

This study was conducted in a mid-sized urban school district in the southwestern United States. I hypothesized that the candidates' reasons for becoming teachers were as diverse as those of traditionally and alternatively certified teachers but might reflect critical differences that have implications for policy and practice. Thus, this study sought to identify differences in job satisfaction between teachers who commit early to becoming teachers and follow a traditional pathway to licensure and certification and those entering through either alternative or emergency routes. The following research questions framed the study:

R.Q. 1: How do traditionally, alternatively, and emergency certified novice teachers differ in background, personality, and job-related characteristics such as teaching knowledge, grit, self-efficacy, and job satisfaction?

R.Q. 2: Does certification status moderate the relationship between teachers' personality, job-related characteristics, and job satisfaction?

With the increased reliance on emergency certification, this study should have broad implications for school districts, administrators, university certification programs, policymakers, and researchers. Understanding whether any relevant teacher success indicators exist should help administrators in their hiring decisions. Studying the demographics of emergency certified teachers and their satisfaction with their choice to become a teacher will benefit supervisors of these newcomers, ensuring they have the support necessary for success. Additionally, this study will help guide administrators and policymakers on potential supports to meet the needs of new teachers. Finally, as the divergent path to teacher licensure continues to emerge, this study will help future researchers examine the effectiveness or ineffectiveness of emergency certification as a viable path to teacher licensure that can inform policy decisions. This study intends to fill some

of these gaps in the literature by investigating differences in background, personality, and job-related characteristics between novice teachers with different teaching licenses.

Definition of Terms

The terms licensure and certification, often used interchangeably, refer to the process by which the state grants individuals a credential, assuring the public that the person is qualified to begin practice in the teaching profession, usually in a public school (Goldhaber & Brewer, 2000; Lilly, 1992). Each state governs teacher licensure and certification to protect students from harm by unqualified teachers. However, the terms have subtle differences depending on the situation. For instance, licensure often describes the state authorization process, which ensures educators have met licensing standards and the minimum level of competency (Goldhaber & Brewer, 2000; Laczko-Kerr & Berliner, 2002; Lilly, 1992). States might issue under-certified teachers a certificate to teach but not a license because they lack an educational background that validates their minimal level of competence (Laczko-Kerr & Berliner, 2002).

To complicate licensure and certification further, a teacher may be licensed to teach in a high school but may hold certification to teach only one content area, such as biology. Furthermore, in some states, teachers must have a separate certification for each science area (e.g., physics, chemistry, biology). In contrast, other states have a general science certification that allows individuals to teach any area of science (Darling-Hammond et al., 2001b; Wilson et al., 2002). The complicated and contradictory state-by-state guidelines governing certification and licensure prompted researchers Darling-Hammond et al. (2001) to note that the "science" of licensure exemplifies the "knotty field of certification." In this study, I will use these terms interchangeably to mean the process that states use to certify that teachers have met, in totality, the criteria and standards demarcated for licensure.

Educational researchers have noted that teachers receive their traditional or "standard" teacher licensure by completing a system of training, which usually begins with the university, most often through a department of education (Darling-Hammond et al., 2001a; Goldhaber & Brewer, 2000; Lortie, 1975/2002). *Alternative* licenses are issued to individuals who begin teaching before acquiring a standard certification. Usually, alternatively licensed teachers have a degree in the content they are teaching, such as mathematics. However, they have not yet taken the required education classes or met the testing requirements to complete the licensure process. Depending on the state, these teachers have one or two years to complete this process. For this paper, I will use *alternative licensure* as described above.

Temporary emergency licensure, however, gets more complicated. For instance, Ingersoll (1999) noted that teachers seek temporary emergency licensure certification when they are qualified to teach in one content area but are moving to another content area because their schools need course coverage. Recently, the term "certified adjunct teacher" has also been used to describe a teacher switching to a new subject area or grade level, such as moving from secondary English to elementary language arts (OSDE, June 2022). These teachers may need to take a test and perhaps a course or two to gain certification. Often, these courses are in a specific content area and not in their major field of certification.

Additionally, temporary emergency licensure may be granted to teachers who are moving from one state to another or reentering teaching after a short break in service (Darling-Hammond et al., 2001). These teachers sometimes need to take one or more content exams or additional courses to be certified in their new state. My research does not include this group of teachers seeking temporary emergency certification, also called certified adjunct teachers.

A final group of prospective educators includes applicants seeking licensure in a content area outside their degree. These individuals, who are new to teaching, apply for *emergency* licensure. Usually, these applicants have a bachelor's degree and/or experience in a field outside education. For example, a nurse who becomes an elementary school teacher falls into this category. In general, teaching candidates who hold a bachelor's degree in a content area but have taken no classes in education and have no formal training as a teacher receive an emergency certificate to teach in a school or school district experiencing severe teacher shortages (Laczko-Kerr & Berliner, 2002).

As I have mentioned, the number of emergency certifications granted by Oklahoma has been rising since 2012. When school districts have candidates applying for emergency licensure, they must follow guidelines from the Oklahoma State Department of Education (OSDE). According to the OSDE website (Hofmeister, 2020), before receiving temporary emergency certification, a school district must:

> . . . document substantial efforts to employ a teacher who holds a current non-emergency certificate. In the event a district is unable to hire an individual meeting this criteria [sic], the district shall document efforts to employ an individual with a non-emergency certificate in another curricular area with academic preparation in the field of need. Only after these alternatives have been exhausted shall the district be allowed to employ an individual meeting minimum standards as established by the State Board of Education for the issuance of emergency certificates (para. 2).

Recently, Oklahoma passed a law allowing adjunct teachers to work full-time in school (OSDE, 2022). This law allows individuals who have some college classes (usually an associate degree) and experience to work in schools as teachers. Degreed emergency certified teachers are

the focus of this study. Although my research does not include adjunct, non-degree teachers, future studies should study this unique group of teachers.

Chapter Summary

According to research, Oklahoma has experienced significant growth in teacher vacancies, a decrease in teacher candidates, and an increase in emergency certificates granted by each state's department of education, making it an ideal state in which to study emergency certification (Maiden & Reynolds, 2018; Sutcher et al., 2016). Some researchers have observed that school districts located in rural and urban areas serving socioeconomically disadvantaged students are most likely to hire these underqualified emergency certified teachers (Darling-Hammond, 2001b; U.S. Department of Education, 2016b). This particular study did not examine study the difference between urban and rural educators, but future studies might be beneficial to consider this variable as well.

The path to teacher licensure will undoubtedly continue to evolve as schools struggle to hire qualified candidates because of teacher attrition and a decrease in education graduates from colleges and universities (Darling-Hammond, 2001b; U.S. Department of Education, 2016a, 2016b). This study sheds light on the differences in background, personality, and job-related characteristics between teachers who hold traditional, alternative, and emergency certifications. Because little research exists on the motivations for teachers who enter the profession in a "less systematic fashion" (Mobra & Hamlin, 2020, p. 1), this study will add to the limited body of research about the differences among individuals pursuing emergency certification and those seeking licensure through more traditional pathways.

Chapter 2: Literature Review

Chapter Overview

As previously mentioned, little research exists on emergency licensed teachers, their effects on school climate and students' academic achievement, and/or their ability to meet students' socio-emotional needs. In fact, an extensive review of the literature points to only a few studies that focus solely on emergency certification and the types of people who pursue this path. One of the few studies, Laczko-Kerr and Berliner (2002), found that the students of traditionally certified teachers outperformed Teach for America (TFA) students by two months on a grade-equivalent scale. Kerr & Berliner noted that students of under-certified teachers have test scores that are 20% less than those of the students of traditionally certified teachers. In another study, Darling-Hammond (2000) analyzed the test performance of students taught by under-certified teachers and found they performed poorly on six different state assessments conducted by the National Assessment of Educational Progress (a .40 to a .63 correlation). Moreover, she also found a positive correlation between the test performance of students whose teachers were traditionally certified and majored in the field in which they were teaching (a +.72 to +.80 correlation). Darling-Hammond confidently asserted that students achieve best with traditionally trained teachers (Darlene-Hammond, 2000).

Another North Carolina study that focused on emergency certification found that students who had teachers holding emergency, provisional, and temporary certifications scored lower in math (-0.03 to -0.06 standard deviation) and reading (-0.01 to -0.02 standard deviation) than did students whose teachers held traditional licensure (Clotfelter et al., 2010). Furthermore, a recent study by Mobra and Hamlin (2020) examined the intrinsic and extrinsic motives of emergency certified teachers who enter the profession. As in this study, Mobra and Hamlin (2020) focused

their research on the growing number of emergency certified teachers in Oklahoma because school districts in this state increasingly depend on emergency certified teachers to fill vacancies (Maiden & Reynolds, 2019). Besides these aforementioned studies, a search indicates few studies have been conducted on the relationship between teachers' job-related characteristics—such as effectiveness, personality, self-efficacy, and grit—and job satisfaction.

This chapter begins with an extensive review of the literature to understand the history of the American educational system, including the emergence of teacher education, licensure, and certification programs. Then, I explore Hawley's theory of alternative certification (1990/1992), which opened the doors to nontraditional teacher certification pathways. Hawley's theory, which had its roots in the belief that teacher education programs were necessary but flawed (Kearns, 1990), might be viewed as the first step in delegitimizing university teacher certification programs and paving the way for emergency certification and other alternative routes to teacher licensure.

After discussing Hawley's theory, the federal administration's increased intrusion into teacher licensure and state educational policies was examined. Before the 1960s, the federal government played a minor role in dictating how states established or managed their school systems. Moreover, public schools were primarily a state's right initiative defined by the 10th amendment to the Constitution, which granted each state all powers "not delegated to the United States by the Constitution, nor prohibited by it to the States" (U.S. Const. amend. X). Increasingly, the federal government has amplified its oversight over public schools. This chapter examines the role of the federal government in school policies, highlighting its impact on state educational policies, including teacher licensure, decline in teacher applicants, and other aspects of schooling.

As the federal government entered into affecting state educational policies, a marked decrease occurred in the number of students enrolling in teacher preparation programs, and states began to note a deteriorating number of teachers entering the candidate pool (Barth et al., 2016; Barton, 2012; Dee & Goldhaber, 2017). In fact, researchers and educational leaders predicted the teacher shortages of today as early as the 1980s, when teacher preparation programs were graduating higher numbers of teaching candidates than they are today (Darling-Hammond, 1984; Grissmer & Kirby, 1987; Laczko-Kerr & Berliner, 2002; Murnane et al., 1989; Murnane & Olsen, 1989; National Academy of Sciences, 1987).

As previously mentioned, Oklahoma schools were one of the hardest affected in the nation as school principals began to rely on emergency certified teachers to fill needed vacancies. As school districts struggled to hire qualified teachers, they implemented solutions to the ever-shrinking pool of qualified teaching candidates. For instance, in 2012, the Oklahoma Department of Education issued only 32 emergency certified teaching licenses (OSDE, 2018, p. 57). By January 2024, the Oklahoma Department of Education issued over 4,676 emergency certificates to unqualified teaching candidates (Goins, 2024; Oklahoma State Board of Education Meeting, 2023, p. 7; T. Ferguson, 2023). The struggle to fill open teaching positions prompted me to study this emerging phenomenon to begin to understand the types of individuals who applied for these emergency certificates, what demographic characteristics and qualifications they might have in common with teachers who had followed more traditional licensure pathways, and what personality traits they might possess that are similar to or different from those of other educators.

Teacher compensation and teachers' low social status might also negatively affect the teaching pool. Researchers are beginning to note that financial enticements (such as pay

increases) and increased benefits (such as federal loan forgiveness, retirement pay, and improved health benefits) might incentivize individuals to become teachers (Borman & Dowling, 2008; Geiger & Pivovarova, 2018; Harris et al., 2019; Russell et al., 2019). Borman and Dowling's (2008) comprehensive meta-analysis of 34 studies suggests that teacher compensation and working conditions affect teacher attrition more than initially suspected. A discussion of compensation will confirm that it does matter to a certain extent.

If compensation matters, does certification matter, and if it does, what is its relationship to teacher effectiveness? Research on teacher certification pathways and teachers' effectiveness in the classroom is mixed. In fact, some researchers have noted that a qualified, effective teacher is the key factor in ensuring students' academic success and socio-emotional development (Chetty et al., 2014a; Chetty et al., 2014b; Hanushek, 2011; Hanushek & Rivkin, 2012; Rivkin et al., 2005; Rockoff, 2004). Recent research focusing on specialized teacher recruiting programs, such as Teach for America (TFA), suggested that teacher training may not be as important as once believed (Decker et al., 2004; Kane et al., 2008; Raymond et al., 2001). A recent study of TFA suggested that TFA teachers may, in fact, be slightly more effective in classrooms than other novice traditionally and nontraditionally trained teachers (Master et al., 2023; An & Koedel, 2021). From my experience as a school leader, TFA teachers receive more mentoring and professional development training compared to most alternatively and emergency certified teachers. This support could account for the slight improvement in the effectiveness of TFA teachers when measured against other nontraditionally trained teachers. (Master et al., 2023; An & Koedel, 2021).

Effective teachers are so essential to student success that some researchers have found that students who have competent teachers make significant gains—some up to an entire grade

level of learning—compared to students who have less competent teachers (Hanushek, 1992; Nye et al., 2004; Sanders & Rivers, 1996). Understanding teacher effectiveness research gave me the groundwork for this study's theoretical framework. It pointed me to specific factors such as teacher qualifications, personality type, self-efficacy, grit, and demographic characteristics that might influence career selection and satisfaction.

Finally, I examined why people decide to become teachers. Understanding the research about the intrinsic and extrinsic reasons people become teachers helped me discern any similarities and differences between traditionally, alternatively, and emergency-trained teachers. Understanding these motives might provide me with insight as I examined the data I collected. Similar to understanding individuals' motives to become teachers, I needed to refamiliarize myself with the most recent research about novice teachers. Appreciating and recognizing the common struggles all novice teachers face when first entering the classroom has given me perspective on the struggles alternatively and emergency certified teachers have because they often lack the fundamental skills that traditional teachers acquire during their induction programs. This literature review identifies the key teacher characteristics that became the focus of this study.

Historical Overview

The convoluted path to a systematic teacher certification process in the United States has been documented by various researchers (Elsbree, 1939; LaBue, 1960; Lortie, 1975/2002). In the early years of the American Republic, teacher licensure was relatively unimportant because educating students took a subordinate role in surviving in a hostile land (Elsbree, 1939, p. 4). Because education was reserved mostly for young boys of wealth and most young women were usually not educated, male teachers' moral certitude and their ability to do physical labor were

often more desirable traits than instructional competency (LaBue, 1960; Lortie, 1975/2002). The church rector or board usually hired and supervised these male teachers (Elsbree, 1939; LaBue, 1960; Lortie, 1975/2002).

As the country became settled, the need for schools to train teachers became apparent. If they received any training at all, most teachers received it at private and semi-private academies, seminaries, and colleges (Elsbree, 1939). Most teachers were barely literate, with only an elementary school education. The innovative idea of training teachers began to slowly gain support as states grappled with a system of educating and licensing teachers. Normal schools popped up across the country with the sole purpose of educating future teachers.

Some believe Massachusetts educator James G. Carter convinced policymakers to initiate the first state-supported, state-funded, state-controlled schools in Lexington, Massachusetts (Flaherty & Flaherty, 1974). Other scholars suggest that Horace Mann was the force behind the first normal school in Lexington (Elsbree, 1939). As the story goes, Mann convinced his friend, wealthy businessman Edmund Dwight, to donate 10,000 dollars toward establishing the first normal school on the stipulation that Mann would also persuade the Massachusetts legislature to fund an equal sum of money for this school. Regardless of who initiated the concept of normal schools, they soon became the primary means to qualify interested teaching candidates (Elsbree, 1939; Flaherty & Flaherty, 1974). Year-long in length, normal schools conferred upon each candidate a certificate of qualifications upon completion of the program.

As America became industrialized, men began to leave classrooms and sought employment in factories that paid them more than they made as teachers (Elsbree, 1930; Urban & Wagoner, 2019). Single women began to replace men in these open positions, thus changing the dynamics of who instructed students. Simultaneously, as women increasingly filled these

teaching positions, a discipline dedicated solely to educating future teachers began on the campuses of public universities and colleges (Urban & Wagoner, 2019). While these higher educational institutions initiated programs to educate future teachers, local and state agencies began to establish educational requirements for teacher certification (Elsbree, 1930; Urban & Wagoner, 2019). Consequently, as states and cities sought qualified, effective teachers, pedagogy and instructional strategies steadily became as important as teachers' moral character.

Perhaps the most unique characteristic of the American primary, secondary, and university education systems is their decentralized structure (Elsbree, 1939). In fact, this decentralized structure distinguishes the United States public university system from that found in other countries because no national system of higher education exists in the United States. In most states, university systems have a decentralized structure. Public colleges and universities, despite being part of the same state system, are frequently governed and organized on regional or local levels. This decentralization similarly characterizes private colleges and universities. While university accrediting systems establish standards, each university system maintains unique program components. The decentralization of public universities underscores the variability in colleges of education across different states. (Urban & Wagoner, 2019). State to state, colleges of education can be vastly different in terms of coursework, expectations, and content (Elsbree, 1939; Urban & Wagoner, 2019).

Universities focus on preparing future teachers to work effectively with students, whereas teacher certification falls under the state government's purview (Urban & Wagoner, 2019). A state department of education often manages each state's licensure system. However, because no centralized educational system exists in America, no centralized teacher licensure system exists either. For example, "for a period of 75 years," two adjacent states may have had widely

divergent certification and licensure systems, “each modifying their requirements several times and only occasionally in the same direction” (Elsbree, 1938, p. 337).

Nevertheless, despite the complex path to teacher licensure for the past 100 years, the route to becoming a certified public-school teacher has run primarily through various university or college teacher education programs (Urban & Wagoner, 2019). Most students enrolled in teacher education courses take a series of instructional pedagogy, methods, and classroom management courses, along with courses in psychology and their academic areas of interest, such as history, English, biology, and mathematics. After students complete coursework, their state’s department of education may grant them certification, usually after they take and pass a series of tests that evaluate their content knowledge and understanding of pedagogy and other aspects of teaching expertise.

Licensure in one state does not necessarily mean licensure in another because there is no national teacher licensure system. Many teachers hold a bachelor’s degree in education in a non-specific content area (Ravitch, 2003). In fact, in 2003, only 39% of the teachers working in public schools had a bachelor’s or graduate degree in any academic field other than education. Naturally, some teaching certification candidates were able to circumvent this system by getting an undergraduate degree first in a content area taught in public schools, such as English or mathematics, and then returning to a college or university to take teacher education classes. Alternatively certified teachers were unique before the mid-1990s because most teachers began their education certification process by majoring in education with a minor in subjects such as elementary education, science, or math (West & Frey-Clark, 2019).

Hawley's Theory of Alternative Certification

Willis D. Hawley (1990/1992) championed alternative certification, referred to as Hawley's theory of alternative certification (AC), as a viable option to fill vacant teaching positions. This theory had two compelling causes for its widespread acceptance: one practical and one theoretical. The practical reason for the state adoption of alternative certification pathways was the "long-term and seemingly intractable shortage of math and science teachers" (Hawley, 1992, p. 3). Although math and science teachers were the primary motivators of alternative certification, colleges and universities were under-generating teachers (Hawley, 1992). Rural areas, in particular, persistently struggled to hire traditionally trained teachers in math and science and other content areas, such as special education and bilingual education (Cagampang & Gutherie, 1988; Darling-Hammond et al., 1989; Hawley, 1992).

Hawley (1992) argued that the practical argument for alternative certification also stemmed from the fact that schools serving minority and disadvantaged students most often had the most difficulty hiring qualified teachers (Roth, 1986; Xu et al., 2015). These school districts often filled open positions with emergency certified candidates who had little experience or training (Hawley, 1992; Roth, 1986; Xu et al., 2005). Alternative certification pathways provided formal pathways to recruit, prepare, and support unconventionally trained teachers to become certified in their selected content areas (Hawley, 1992). Emergency certification pathways were not established and often did not provide such formalized support.

The more philosophically oriented argument for AC contended that traditional certificate preparation was at the core of the problem because preservice preparation programs failed to adequately prepare teachers for the rigors of instructing students (Hawley, 1992). College- or university-based preservice programs lacked merit, and those barriers might deter many talented

people from pursuing a career in teaching (Kearns, 1990). David Kearns, chief executive officer of Xerox Corporation and former deputy secretary of education, argued that everyone knew that most education classes ranged from "dull to deadly," which kept talented people from pursuing a teaching career (Kearns, 1990, p. 14). Kearns said the best teachers reported the most valuable things they learned were not in the college classroom but rather from experiences instructing students in classrooms, and if they were lucky, they had a "mentor who showed them the ropes." Kearns argued that traditional certification preparation programs were "inherently superfluous" as teaching was an "intuitive craft, not a science, like medicine." The best method to become a teacher, he said, was learning from other experienced teachers who trained to become mentors to these novice teachers (Hawley, 1992; Kearns, 1990).

From this perspective, commitment to working with students and knowledge of the subject to be taught were the central prerequisites for effective teaching (Hawley, 1992; Kearns, 1990). This argument became known as the "rocket scientist rationale" of alternative certification because without a teaching certificate, even NASA scientists and Nobel Prize winners could not be certified to teach in public schools (Hawley, 1992, p. 5). Alternative teaching certification was eventually abandoned in subject areas such as history and English, where there was a deep teaching pool. However, the practice survived in content areas such as math and science, where there was no such pool. Because individual states decide whether to hire alternatively certified teachers, the study of background material and comprehensive program design might materialize in one state, whereas another state might make only minor changes to previous policies (Hawley, 1990). Of course, everything in between existed as well. Today, alternatively and emergency certified teachers are hired in all content areas because of teacher shortages, including history and English.

The AC plan circumvented the typical participation of university-based programs that prepared individuals to receive traditional licensure. Hawley (1992) proposed alternative licensure, and the programs developed as a "last resort" to the teacher shortages (p. 4). His argument did not challenge the assumption that conventionally certified teachers, at least in most cases, were more likely to be better-trained teachers than those certified through alternative methods. Generally, the phenomenon of emergency certified teachers continues to be viewed as a non-desirable but necessary solution to the problem of filling teacher vacancies (Hawley, 1992).

Hawley's theory (1990) paved the way to address today's teacher shortages with its roadmap for providing alternative licensure to interested teaching candidates. This roadmap often circumvented the typical candidate's participation in university-based programs (Hawley, 1992). Hawley's theory provided practical strategies, still in use today, for individual states and school districts to determine the requirements for alternative teaching certification based on programs of study and work experiences.

High-Stakes Accountability and the Decline in Teacher Candidates

With the passage of No Child Left Behind (NCLB), Congress mandated that by the end of 2014, every student in America would exceed state standards in reading and math (NCLB, 2002). As part of this mandate, Congress tried to "legislate better teachers" (Hanushek & Rivkin, 2012, p. 132) by stipulating that every school district that received federal funds would hire only teachers who were considered highly qualified (NCLB, 2002). By imposing on school districts, NCLB legislated Congress' definition of teacher preparation of highly qualified (NCLB, 2002). NCLB temporarily slowed the number of potential candidates seeking teaching positions through the alternative certification paths established in the 1970s and 1980s (Walsh & Jacobs, 2007).

The alternative and emergency pathway to certification opened once again in 2014 because NCLB flexibility allowed districts to hire noncertified teachers to fill teacher shortages.

Upon its passage, NCLB precipitated the growth of educational consulting firms dedicated to preparing high-quality teachers, offering instructional strategies to state education departments and local school districts. Many of these consulting firms provided, for a fee, strategies to ensure that students were meeting state standards, instructional tools to increase teacher effectiveness, and frameworks for evaluating educators (i.e., Danielson with the Danielson Group; Doug Reeves with Creative Leadership Solutions; Robert et al.'s Resources Organizations). These organizations promoted their standards for quality instruction, identified characteristics of excellent teachers, and proposed principles and instructional strategies to ensure student achievement.

The past four U.S. presidents have also inferred—via their increasingly centralized education policies—that public schools have failed to deliver on Horace Mann's compelling argument that schools should *equalize* educational opportunities for all students (Hall, 2017; Strauss, 2017). These presidents have poured billions of dollars into increasing school choice and establishing policies that stigmatize lower-achieving schools, which often serve minority and impoverished students (Lubienski, 2014; McGroarty, 2001; Strauss, 2017). Advocates of charter and private schools have argued that public schools have failed the public (Ford et al., 2017; Hall, 2017). Similarly, politicians of both parties, nonprofit organizations, and business professionals have responded to this professed public school problem by pouring dollars into charter school systems, private foundations, and public schools (Ford et al., 2017). Moreover, neoliberal Republicans, including U.S. Secretary of Education Betsy DeVos, have undercut public school funding and have promoted policies involving initiating vouchers and incentivizing

funding for private and charter schools (Ford et al., 2017; Lubienski, 2014; McGroarty, 2001). Most recently, President Trump's proposed $9.2 billion cut, accounting for 13.6% of the U.S. Department of Education's funding, has made business-oriented reform even more explicit (Ford et al., 2017; Sargrad, 2017). While simultaneously proposing cuts in educational spending, Trump proposed directing $1.4 billion of new money into school-choice options (Sargrad, 2017).

These policies have negatively affected teacher education programs (Lachlan et al., 2020; Partelow, 2019). Presently, one-third of teacher candidates hold an alternative certificate (Constantine et al., 2009). Researchers and policymakers also speculate that the COVID-19 pandemic will negatively affect enrollment in teacher education programs (Lachlan et al., 2020) because teacher pay is quite low compared to other equally prepared professionals (Allegretto & Mischel, 2016; Allegretto & Mischel, 2018). For instance, teachers' pay, on average, is 76.2 cents on the dollar when compared to other college graduates' earnings (Allegretto & Mischel, 2018). I will discuss teacher compensation in another section of this literature review; however, it is essential to note that in 2017, female public school teachers made 15.6% less in wages than other college-educated workers (Allegretto & Mischel, 2018). In contrast, male teachers made 26.8% less in wages than did comparable workers. Allegretto and Mischel (2016, 2018) argue that teacher pay is one of the primary reasons for declining enrollment in teacher education programs.

Between 2010 and 2018, nearly every state in the nation documented declining enrollment in teacher education programs, with some states recording decreases of more than 50% (Allegretto & Mishele, 2016; Allegretto & Mischel, 2018; Darling Hammond et al., 2016; Partelow, 2019). Moreover, between 2010 and 2018, one-third fewer students enrolled in teacher education programs (Darling Hammond et al., 2016). In a 2016 survey of college-bound

students, only 5% were interested in pursuing a career in education, a 16% decrease between 2010 and 2017 (Darling Hammond et al., 2016). This decline in students enrolled in teacher preparation programs appears across all racial and ethnic groups (Darling Hammond et al., 2016). When disaggregated by race and ethnicity, enrollment data indicated that 25% fewer Latinx and Black students enrolled in teacher preparation programs in 2018 compared to 2010 (Partelow, 2019). Moreover, the decline in qualified teacher candidates is not necessarily just an American problem (Gadusova & Predanocyova, 2018; Garcia & Weiss, 2018; Zuzovsky & Donitsa-Schmidt, 2017). In Slovakia, for instance, a system-wide reform of teacher education programs is underway to rethink learning outcomes for teachers because of the decreased number of applications for undergraduate and graduate education programs over the past several years (Gadusova & Predanocyova, 2018).

In their provocative study of elementary math teachers in Florida and North Carolina, Xu et al. (2015) observed that high-poverty novice teachers were more likely to be certified through alternative means. Novice teachers working in affluent schools have typically been certified through the traditional state accreditation system. In contrast, novice teachers teaching in high-poverty schools were most likely to be certified through nontraditional emergency pathways. Lowering entry barriers to the teaching profession has most likely exacerbated the sorting of traditionally trained teachers to lower-poverty schools and alternatively and emergency certified teachers to high-poverty schools. While Xu et al.'s (2015) study focused primarily on whether school-poverty factors affected teacher performance over time, it underscores the national struggle that high-poverty school districts face when hiring qualified, certified teachers (Cardichon et al., 2020; Sutcher et al., 2016).

In Finland, Singapore, Germany, and Taiwan, entering a teaching education program is highly competitive, and once qualified, teachers are held in high regard (Richardson & Watt, 2016; Watt & Richardson, 2007; Watt & Richardson, 2008; Watt & Richardson, 2012). In highly competitive markets such as Ontario, Canada, Singapore, and Finland, only the most academically talented and initiative-taking individuals who also have essential interpersonal abilities are admitted to teacher education. In the United States, where teachers are in high demand, a shallow teaching pool exists, and entrance to teacher education programs and access to certification are not as competitive (Allegretto & Mishele, 2016; Allegretto & Mischel, 2018; Darling Hammond et al., 2016; Partelow, 2019).

In the United States, the North Carolina Teaching Fellows Program offered academically promising students a guaranteed full-ride scholarship for tuition in return for a commitment to teaching in public schools in the state for at least four years (Henry et al., 2012). Five years later, nearly 80% of these teachers were still teaching and were among the most effective in ensuring that all students learn (Henry et al., 2012). This program was instrumental in substantially increasing minority and male candidates (Henry et al., 2012). Even though the program demonstrated success over 25 years, it fell victim to a political spending cut (Henry et al., 2012). Like career decisions about becoming a teacher, educational programs are often constrained by public perception and politics (Richardson & Watt, 2016).

Teacher Shortages Open Alternative Pathways to Certification

Following the economic recovery after the Great Recession of 2008, school districts needed to hire teachers to replace those who were discharged only a few years earlier (Leachman et al., 2017; Sutcher et al., 2016). As school districts struggled to hire teachers, attrition increased while enrollment in teacher education programs nationwide simultaneously decreased by 35%, or

approximately 240,000 teachers (Sutcher et al., 2016). The latest figures confirm that the downward enrollment trend is actual for traditional and alternative teacher certification programs (Nietzel, 2019). Overall, 11% were enrolled in alternative certificate programs, and 89% were in traditional certificate programs. From 2009–2010 and 2012–2013, enrollment steadily declined (Nietzel, 2019). Two other identified issues contributing to the shallow teacher pool are teacher attrition and teachers' inability to easily transfer their teaching certificates from one state to another (Ring, 2016). However, some states, such as Oklahoma, now allow for the transfer of teaching certificates (Oklahoma Department of Education, 2021b).

According to the latest national statistics from the U.S. Department of Education, since the recession of 2008, enrollment in teacher education programs has fallen dramatically (Aragon, 2016). Areas of teacher shortages are no longer confined to math, science, and special education; even English and social studies teachers are hard to find in some parts of the country (Aragon, 2016). For example, Elaine Wynn, president of the Nevada State Board of Education, called Nevada's teacher shortage "horrific," suggesting that "we're going to all sink" because the state has 1,000 teacher vacancies (Milliard, 2015). In Texas, the education commissioner declared the teacher shortage the "biggest threat" to Texas schools (Daniel, 2016).

Partially because of these nationwide teacher shortages, alternative certification pathways, which included emergency licensure, became more common. Alternative certification is no longer perceived as the "last resort" (Hawley, 1992, p. 4); it has become a valued pathway to teacher certification (Ring, 2016). On-the-job training, or learning from teaching, has become the norm for many novice teachers across the country (Ring, 2016; Saffold, 2006). In the best systems, emergency and alternatively certified teachers have a mentor-teacher by their side coaching them (Hawley, 1990; Saffold. 2006). However, not all systems provide these resources.

Understanding the definition of alternative certification is difficult because of the competing, often unspoken, political agendas policymakers hold (Darling-Hammond, 1990). These competing political agendas use "undefended assertions and counter-assertions grounded in mythology and half-truths" (Darling-Hammond, 1990, p. 124). Furthermore, these programs differ greatly in scope, program length, program intensity, and length of commitment (Saffold, 2006). Today, every state offers a pathway to alternative certification; some pathways are incredibly stringent, and others are quite lax (Darling-Hammond, 1990).

Before talking about alternative certification programs, summarizing the pathway for traditional teacher licensure is useful. Traditionally certified teachers hold a bachelor's degree in education, including advanced coursework in the subject area they want to teach (Lortie, 1975/2002; Teaching Certification Degrees, 2020). Additionally, as I have previously mentioned, traditionally trained teachers complete a teacher-training program, usually offered by a university, a college, or sometimes a school district. Often, they pass teaching exams, and in some instances, they have a master's degree in education or a related content field (Urban & Wagoner, 2019).

Presently, alternative and emergency certification pathways exist in every state and the District of Columbia (TeacherCertificaton.com, 2020; Teaching Certification Degrees, 2020). Since the mid-1980s, when alternative programs began in earnest, more teachers continued to become certified to teach through various alternative pathways (Darling-Hammond, 1990; Garcia & Weiss, 2018; Hawley, 1990). Although alternative and emergency licensure programs are vastly different, a few generalizations about alternative certification can be made. Through the alternative licensure process, states issue temporary teaching certificates to individuals who lack all the traditional teacher certification qualifications, most often because of a lack of

qualified teachers available to fill positions (Garcia & Weiss, 2018; Hawley, 1990; Teaching Certification Degrees, 2020).

As previously mentioned, alternative certification circumvents the required preparation of traditional college or university-based programs (Hawley, 1990; Lortie, 1975/2002). Traditional certification begins at the college or university with coursework in education and ends with a student teaching experience. Alternative certification differs because it usually does not include student teaching. Although candidates may have expert knowledge in their fields, they often have taken no coursework in education (Hawley, 1990). Each state defines those qualifications differently based on coursework and experiences, which may or may not be institutionally related (Hawley, 1990; Lortie, 1975/2002).

Universities require fewer classes for alternative certification than for traditional certification, and they do not necessarily award an education degree (Hawley, 1990; Lortie, 1975/2002; Urban & Wagoner, 2019). Therefore, alternatively certified teachers no longer need to pursue a bachelor's or master's degree in education because any bachelor's degree can prepare a candidate to teach (Ring, 2016; Saffold, 2006). Thus, an engineering degree offers a pathway for prospective employees to teach mathematics, and a musical performance degree allows candidates to teach chorus. People, including me, have sought alternative certificates because they hold a bachelor's degree in their chosen field or have specialized knowledge to pass on to the next generation (Hawley, 1990). Alternative licensure does replace emergency licensure in many states, though in Oklahoma, both emergency and alternative are offered alongside traditional licensure (Aragon, 2016).

Alternative certification qualifications differ from those for emergency certification (Constantine et al., 2009; Urban & Wagoner, 2019). To become emergency certified, prospective

teachers must complete steps delineated by the certification agency (Constantine et al., 2009; Urban & Wagoner, 2019). Teachers who hold emergency certifications complete minimal training before entering the classroom (Urban & Wagoner, 2019). Additionally, these novice teachers are usually assigned a mentor teacher and provided with support from other school districts, such as specialized training and "boot camps" (Garcia & Weiss, 2018; Teaching Certification Degrees, 2020).

Many emergency and alternatively certified teachers eventually earn their teaching licenses (Teaching Certification Degrees, 2020). While completing the alternative and emergency certification process, these teachers often hold a salaried position for equal or less pay than a traditional teacher. Nearly every state requires all teachers to pass a teaching test of some kind (Richardson & Watt, 2016; Teaching Certification Degrees, 2020; Watt & Richardson, 2008; Watt & Richardson, 2012). Some have noted that the emergency certification process places under-qualified individuals in classrooms to instruct students without proper preparation, and such practice may be harmful to students (Darling-Hammond et al., 2016; Sutcher et al., 2016). Ward (2019) commented:

> Alternative certification may solve the teacher shortage crisis, but the cost to children's education is not yet clear. What is clear is that more providers of alternative certification are increasingly delivering programs for individuals who enter the pipeline while bypassing traditional teacher preparation. (p. 7)

Furthermore, the continued cost to the teaching profession of nontraditional certification routes is also concerning. Borman and Dowling (2008), for example, found that teachers with traditional or regular certification are significantly less likely to leave the profession compared to those without specialized certification or training (p. 387). In other words, teachers without

certification are 2.63 times more likely to leave the profession than those with certification. Therefore, although it seems apparent alternative certification is a popular short-term solution to a problem, examining its lasting effect on students and our educational institutions is worth pursuing. I hope this study is the first of many to inform this discussion.

Oklahoma's Teacher Shortage

Oklahoma, which had led the nation in cuts to education funding over the past decade, has increasingly depended upon emergency certified applicants to replace teacher vacancies (Farmer, 2017; Leachman, 2017). A decade ago, Oklahoma spent $1 billion more on K -12 education than it did in 2017 (Farmer, 2017). In April 2018, nearly half the state's 500-plus school districts shut down for a teacher walkout (Campbell, 2018). To put this number in perspective, the schools that closed served approximately 75% of the state's students. Between 2008 and 2018, Oklahoma cut its budget by 26.8%; the state with the closest cut to this is Alabama, which has cut its educational budget by 17.3% (Leachman, 2017). The Oklahoma Teacher Shortage Task Force Preliminary Report (2015), while declaring a statewide teacher shortage, made nine policy recommendations in changes to counteract the problem and attract alternatively and emergency certified teachers to the state (Aragon, 2016).

Despite these recommendations, the situation in Oklahoma continues to be dire (Oklahoma State School Board Association [OSSBA], Education Facts). Since 2017, school districts have eliminated 480 teaching positions, and as of August 1, 2018, 536 school districts reported teaching vacancies (Querry, 2017). School districts especially struggle to find highly qualified special education, elementary, high school science, and high school and middle school math teachers to fill open positions (OSSBA, 2016; OSSBA, Education Facts). Eleven of every 100 Oklahoma teachers leave the state or the profession every year (OSSBA, 2016). Moreover,

approximately 17% of those new to teaching leave Oklahoma or the profession after their first year, and 10% of those with a decade of experience leave the state or exit the profession every year, thus leaving schools with fewer experienced teachers working with students (OSSBA, Education Facts).

Oklahoma uses more emergency certified teachers than most states do (OSSBA, Education Facts). Since 2009, the vast number of unprepared and underprepared teachers employed in school districts has skyrocketed in Oklahoma (OSSBA, Education Facts). Between June and December of 2018, the Oklahoma Department of Education granted 2,852 emergency teaching certificates (Palmer, 2018; OSSBA, Education Facts). By the conclusion of the school year, this number surged to a record-breaking issuance of 3,038 emergency teaching certificates Palmer, 2018; OSSBA, Education Facts).

The following year, between January and August 2019, the Oklahoma State Department of Education issued 1,666 emergency teaching licenses (Stanish, 2019). In other words, during the first four months of the 2018–2019 school year, 44% more emergency teaching certifications were issued in Oklahoma than during the entire 2016–2017 school year (Eager, 2017). The number of emergency certified licenses issued in Oklahoma increased by 4,365% from 2011 to 2018 (OSSBA, Education Facts).

Many teachers entering the classroom through emergency certification have no preparation before becoming a teacher. In Oklahoma, emergency certified teachers must hold bachelor's degrees; however, the degree does not need to be in education (OSSBA, Education Facts). Furthermore, emergency certified teachers are not required to have any background in effective instructional strategies, teaching methods, or classroom management techniques (OSSBA, Education Facts; Palmer, 2018). In 2019, a new Oklahoma law required emergency

certified teachers to have a bachelor's degree and six clock hours of professional development before they begin teaching (OSSBA, Education Facts).

Finally, to make matters worse, Oklahoma teachers are persistently recruited by bordering states such as Texas and Arkansas, which pay teachers $10,000 to $20,000 more (Dekker, 2019; Farmer, 2017). Furthermore, 24% fewer students completed their teacher preparation program in Oklahoma between 2005–2006 and 2013–2014 (OSSBA, Education Facts). Although the number of students enrolled in public schools is projected to continue to increase, researchers predicted a 22% decline in college students completing their teacher preparation program between 2013–14 and 2018–19. Oklahoma continues to depend on emergency certified teachers to replace teachers who are retiring or leaving the state for work elsewhere (Farmer, 2017). The COVID-19 pandemic will surely have a similar impact on Oklahoma teachers (McNutt, 2020).

Does Certification Matter?

Hattie (2009) researched the factors associated with student learning and achievement. In this meta-analysis, Hattie noted that the quality of teaching contributed more to student learning than home, curriculum, student, or school factors. Although teachers are positively linked to student learning, teachers and learning are not "interchangeable parts" (Weisberg et al., 2009, p. 9); thus, differences in individual teachers' effectiveness suggest student outcomes are significantly associated with who is doing the teaching (Nye et al., 2004). Atteberry, Loeb, and Wyckoff's (2015) research on the effectiveness within large cohorts of newly hired teachers illustrated that teachers' relative effectiveness is stable because novice teachers' effectiveness is predictive of their effectiveness later in their careers. These measures are especially predictive for novice teachers who initially display the highest and lowest levels of effectiveness (Atteberry

et al., 2015; Xu et al., 2015). Persuasive evidence exists that individual differences in teacher effectiveness occur (Atteberry et al., 2015; Chetty et al., 2014a; Chetty et al., 2014b; Hanushek & Rivkin, 2012; Klassen & Kim, 2017; Xu et al., 2015). Nevertheless, school systems rarely publicly concede that individual teachers may vary in their levels of effectiveness with students (Scott & Dinham, 2008; Weisberg et al., 2009).

Some researchers have noted that alternatively trained teachers have had success in the classroom with nontraditional programs like Teach for America (TFA) (Decker et al., 2004; Kane et al., 2008; Raymond et al., 2001). According to these researchers, TFA teachers, on average, are more effective than traditionally certified and alternatively certified teachers. TFA teachers do receive additional support and mentorship that other novice teachers do not usually receive, and therefore, this support may lead to their increased effectiveness (Decker et al., 2004; Kane et al., 2008; Raymond et al., 2001; Teach for America, 2020). Research suggests novice teachers who have mentors are less likely to leave the profession than those with no support (Borman & Dowling, 2008). Although TFA teachers commit to only two years at a particular school, the additional mentoring support they receive might make them more effective and, therefore, more satisfied with their position than novice teachers without this support.

A perception has long existed that teaching does not require a special set of skills and that teaching is not a highly respected occupation. Although perhaps more implicit than explicit, many people have held this perception of educators since the earliest years of our democratic republic (Elsbree, 1939; Lortie, 1975/2002). In fact, for the first two hundred years of our country's history, teachers were not required to have any specialized training (Lortie, 1975/2002). Moreover, as former U.S. education secretary Kearns argued, teaching "is

deceptively simple. . . yet, no science or pedagogy" exists for education as it does for science or medicine (Kearns, 1990, p. 14).

Nevertheless, for the past one hundred years, states have required teachers to have specialized training and licensure (Lortie, 1975/2002). Moreover, attitudes like that of Secretary Kearns, who held the nativist belief that "good teachers are born, not made," have had dire consequences for our profession (Darling-Hammond, 2006, p. ix; Scott & Dinham, 2008). This observation seems prophetic, given the rise in the number of uncertified folks entering the teaching ranks, which echoes the teaching profession's early days (Darling-Hammond, 2006; Darling-Hammond, 2018). This backward movement has prompted some researchers and educators to observe that emergency certified teachers have grave gaps in their pedagogical and instructional knowledge that may harm students in their classrooms, as well as the climate and culture of our public schools (Darling-Hammond, 2018; Xu et al., 2015).

Although emergency certification appears to be a viable means to ensure school districts have the staffing they need in a climate of high demand and low resources, novice teachers with substantial teacher preparation enter the classroom with more confidence than those without this training (Fitzgerald, 2020; Pfitzner-Eden, 2016). Research indicates that teachers who have benefited from carefully constructed teacher education programs, coupled with clinical opportunities with relevant coursework, are more effective in the classroom and more likely to remain in the profession. Besides pedagogy, classroom management, lesson planning, instructional strategies, and school-based experiences help teachers understand how to build meaningful relationships with students. Some educational researchers have observed that without this traditional training, unqualified teachers are less effective in meeting their students' needs, and this ineffectiveness undermines the credibility of educators in general (Cardichon et al.,

2020). Traditionally trained teachers enter the classroom with more confidence in communicating, planning, and using instructional strategies than do those who are alternatively and emergency-trained (Scott & Dinham, 2008; Weisberg et al., 2009; Zientek, 2007).

Pay and Working Conditions Matter

In 1903, George Bernard Shaw wrote that "those who cannot, teach" (1903/1999, para. 36). This adage that teachers chose their employment because they are incapable of doing meaningful work has gnawed persistently at the status of public education for at least a century, perhaps longer, and has affected teachers' compensation packages, especially compared to those offered to other professionals. There is no state in America in which teachers are paid more than other college graduates (Allegretto & Mischel, 2016). In their ongoing research about teacher compensation, Allegretto et al. (2004, 2008, 2011, 2014, 2016, 2018) have documented the decline since the 1960s in "*relative* teacher pay—teacher pay compared with the pay of other career opportunities for potential and current teachers" (Allegretto & Mishel, 2016, p. 2). Although the pay for female teachers has decreased significantly over the past 50 years, the pay for male teachers has decreased even more (Allegretto & Mishel, 2016). In 1979, the teacher wage disadvantage for male teachers was 22.1 percent; by 2017, this disadvantage grew to 26.8% (Allegretto & Mischel, 2018).

After the Industrial Revolution, teaching became predominately a female-dominated profession, and like all female-dominated professions, teachers were not paid well compared to male-dominated professions, which compensated their workers better than those dominated by women (Allegretto & Mishel, 2018; Allegretto & Mishel, 2016; Elsbree, 1939; LaBue, 1960; Lortie, 1975/2002). Moreover, historically, gender discrimination restricted occupational possibilities for educated women who sought work as teachers where the compensation,

convenience, and work schedule allowed them flexibility and financial independence (Allegretto & Mischell, 2018; Allegretto & Mishel, 2016). Therefore, men who became teachers accepted that they would be paid significantly less money but typically used teaching as a steppingstone to administrative positions, so receiving such low pay was relatively short-lived. Today, three-fourths of teachers are still female; the gender composition has not changed significantly over the past few decades because of this pay gap (Allegretto & Mischell, 2018; Allegretto & Mishel, 2016). People who argue that teachers are overpaid are unable to explain why this gender gap still exists if teachers are paid well (Allegretto & Mishel, 2018; Allegretto & Mishel, 2016). Because women have more career opportunities than they had in the past, this captive labor pool no longer exists (Corcoran et al., 2004). Raising the level of compensation by paying teachers a livable wage proportional to that of other professionals is a viable path to ensuring teacher quality, preventing teacher turnover, and strengthening teacher retention (Allegretto, 2022; Allegretto & Mischel, 2018; Allegretto & Mishel, 2016),

A 1997 study determined that higher wages were more important than working conditions in addressing teacher attrition (Stinebrickner, 1998). Borman and Dowling's (2008) meta-analysis added nuance to this prior finding and additional insight into the relationship between school resources, teacher salaries, educational expenditures, and teacher attrition. Teacher salaries do have some influence on teacher attrition (Borman & Dowling, 2008). Fourteen studies found that teacher attrition occurs less often when teachers receive higher salaries (Borman & Dowling, 2008). This phenomenon was true for teachers with zero to five years of experience and those with six to 30 years of service (Borman & Dowling, 2008). Higher salaries reduced attrition for teachers with zero to five years of experience, and reduced teacher

attrition rates were even more decisive for teachers later in their teaching careers (Borman & Dowling, 2008)..

However, Borman and Dowling (2008) also observed that teachers' salaries are a predictor of teacher attrition, but salaries do not tell the entire story. The 1987–88 Teacher Follow-up Survey revealed that for only 4.5% of public school teachers and 9.1% of private school teachers, salary was the primary reason for a career change (Boe et al., 1997; Hanushek et al., 2004; Lankford et al., 2002). Earlier research also suggested that male teachers cited salaries as a reason for a career change, whereas female teachers did not cite salaries as their reason for such a change (Bloland & Shelby, 1980). Researchers must also consider the other aspects of teaching, such as working conditions, mentorship, school climate, and student demographics, when examining the causes of teacher attrition (Borman & Dowling, 2008, p. 400).

Although teacher attrition is not the focus of this research study, it is one factor underscoring the phenomena under investigation. Understanding the relationship between compensation and other factors that affect teacher attrition was a crucial step in connecting Lortie's (1975/2002) observations about what motivates one to become a teacher to the current problem at hand. Since the 1980s, researchers have predicted teacher shortages (Darling-Hammond, 1984; Grissmer & Kirby, 1987; Murnane et al., 1989; National Academy of Sciences, 1987). These predictions have come true and are the reality for many school districts and school leaders. These shortages have created a hiring crisis throughout the United States, especially in states like Oklahoma, which allocates fewer dollars for education expenditures than surrounding states.

Reasons People Choose a Career in Teaching

A broad body of research has been devoted to understanding why people become teachers, and the types of people attracted to the profession (such as Kim et al., 2019; Mangaoil et al., 2017; Moss, 2020; Suryani et al., 2016). Lortie (1975/2002) noted that "among the occupations of above-average social rank, teaching has continued to be marked by easy entry" into the profession (p. 23). This eased entry might be why some believe teaching is low status (Elsbree, 1939; Lortie, 1975/2002).

Lortie (1975/2002) identified five themes that attracted individuals to education. Examining these themes helps in understanding the motivations that draw individuals to teaching. The first theme, identified as the *interpersonal* theme, describes the pull individuals have toward teaching because of a desire to work with young people (Lortie, 1975/2020; Moss, 2020). In fact, teaching is one of the few careers that allows adults to have regular contact with healthy children and teens (Lortie, 1975/2020). The creativity required to effectively teach the prescribed curriculum, along with their sensitivity when interacting with students, are integral aspects of the interpersonal theme (Lortie, 1975/2020).

Teachers provide a valuable moral service to society, and the occupation has been described as reputable, honorable, and even moral (Lortie, 1975/2002; Moss, 2020). This *service* theme, which is akin to the concept of service described in the Christian and Jewish religions, attracts individuals to the teaching profession (Lortie, 1975/2020). People drawn to teaching for this reason are less likely to seek to revolutionize educational institutions, as they appreciate the value of their own educational experiences (Lortie, 1975/2002).

The theme of continuation enables educators to fulfill their desire to immerse themselves in specific subjects and concepts they were initially introduced to as students, thus allowing

teaching to become a lifelong learning pursuit. Aligned with this theme is the fulfillment teachers find in engaging with young individuals to aid in their development as positive, contributing members of society (Lortie, 1975/2020; Richardson & Watt, 2016; Richardson & Watt, 2005).

Even though many people outside education postulate that money, prestige, and security should not motivate teachers, the *material* benefits of teaching exist (Lortie, 1975/2020; Richardson & Watt, 2016; Richardson & Watt, 2005). These include financial benefits and flexible work schedules (Richardson & Watt, 2005; Richardson & Watt, 2016). Women, in particular, revealed financial stability as one of the primary reasons they selected teaching as a career (Lortie, 1975/2002; Richardson & Watt, 2005: Richardson & Watt; 2016). The security of a steady paycheck—the social, mobile aspect of teaching—attracts potential educators to teaching as a career (Richardson & Watt, 2005; Richardson & Watt, 2006). Because society perceives teaching as white-collar, middle-class work, it is a career path that offers upper mobility for individuals with blue-collar roots (Lortie, 1975/2000). Like material benefits, the theme of *time compatibility* encapsulates other related factors that compel people to become teachers. Weekends off, consistent work hours that end mid-afternoon, regular holidays, and summer breaks are all components of time compatibly that attract individuals to the profession (Lortie, 1975/2005).

Another attractive component of teaching as a career is that entrance into the field may occur at any time, even late in life (Glendenning & Cusack, 2018; Richardson & Watt, 2016). Unlike narrow decision-range professions such as medicine, in which entrance into the field requires specialized skills and educational paths, teaching has wide decision-access points (Glendenning & Cusack, 2018). As a result of the multiple easy-access pathways to teaching,

little homogeneity exists within the teaching ranks (Glendenning & Cusack, 2018; Richardson & Watt, 2016).

The overwhelming reason that many enter the teaching profession, regardless of licensure, is to make a difference in the lives of students (Easley, 2006, 2008). Prospective teachers are also drawn to the profession because they are committed to enhancing societal well-being by ensuring that young people receive an outstanding education and the best opportunities available (Richardson & Watt, 2016). Furthermore, teaching has a wide variety of embedded moral ideals: ensuring that all interactions with students are honest, empathic, compassionate, and ethical, valuing the dignity of others, embracing accountability for one's actions, and advocating for the rights of students. These moral ideals embedded in teaching draw many to the profession—one that provides daily moral fulfillment (Easley, 2007, 2008).

Finally, Richardson and Watt (2016) noted that since the 1960s, several motifs have emerged as reasons people chose teaching as a career. These motifs include the desire for social mobility, the pursuit of social mobility, influence from parents and extended family, alignment with their personal schedules, the need for a stimulating and absorbing career, the ability to influence others, the desire to work with young children and adolescents, the appeal of a people-oriented profession, and job-related benefits such as security, pensions, and vacations (Richardson & Watt, 2016). Despite differences among those who become teachers, occupations eventually shape those who work within them, regardless of the path (Sarason, 1971/1982).

Respondents in research often report they decided to become teachers early in life because they identified with a single teacher or with teachers in general (Lortie, 1975/2002). Many respondents indicated they decided to become teachers as early as first grade (Lortie, 1975/2002; Richardson & Watt, 2016). Sometimes, teaching candidates are unable to pinpoint a

particular moment when they decided to become a teacher. Still, they shared that they decided long ago to teach and have said they always wanted to teach (Mangaoil et al., 2017). Researchers have hypothesized that some early deciders select teaching as a career because they felt marginalized, and a single teacher or several teachers helped them develop a sense of belonging (Richardson & Watt, 2006; Richardson & Watt, 2016).

Mangaoil et al. (2017) found several reasons participants decided to teach. The two most cited reasons for becoming a teacher were early exposure to the teacher's role and respected family members who were teachers or worked in educational settings (Mangaoil et al., 2017). These participants felt positive about the teaching profession and their teachers (Mangaoil et al., 2017). They also had positive personal characteristics that served as a model. Participants also recognized that they adjusted their professional plans because of parental influence or socioeconomic circumstances (Mangaoil et al., 2017).

A study in Indonesia, considered a "collectivist" country as opposed to an "individualistic" country such as the United States, found that respondents had distinct reasons for becoming teachers (Suryani et al., 2016). For Indonesians, the top reason for becoming a teacher was to make a social contribution to society, followed closely by the desire to work with children or adolescents. (Suryani et al., 2016). The altruistic reason for promoting social equity was the third most cited reason (Suryani et al., 2016). Moreover, Indonesia is an exceedingly religious country, and participants often cited religious influences as a reason for becoming a teacher (Suryani et al., 2016). The researchers in this study concluded that teachers were held in high regard in Indonesia because of their altruistic commitment to society (Suryani et al., 2016).

In American Latinx culture, teachers are also held in high regard, and as White female Baby Boomers age and retire, Latinos have increasingly filled these openings (Flores, 2017). In

Latinx culture, teaching is perceived as a feminine, caring profession aligned with the mother's role as the nurturer of a family (Flores, 2017). Teachers care for their students in a manner similar to the way in which mothers care for their families (Flores, 2017). Furthermore, after being in the teaching profession for some time, many Latinx teachers tended to acquire enthusiasm for teaching and a commitment to social justice (Flores, 2017).

Many Latinos interviewed for Flores's 2017 study were the first to graduate from college. They may have been channeled into the teaching profession by social structural forces such as class, racial, and gender inequalities, which both constrained and enabled their career choice (Flores, 2017). Many of these first-generation, working-class college graduates select teaching as a profession because a teaching career provides them with a steady job that provides financial stability for their families (Flores, 2017; Elsbree, 1930). The first-generation teachers said they were often encouraged to become teachers by family members and relatives who worked at the school as playground monitors, lunch staff, secretaries, and other support positions (Flores, 2017; Mangaoil et al., 2017).

Little research exists on what motivates emergency certified teachers to become classroom teachers. As I have previously noted, only one recent study examined this phenomenon (Mobra & Hamlin, 2020). The researchers examined the intrinsic and extrinsic motives of 30 emergency certified teachers for becoming educators in a variety of rural, suburban, and urban cities in Oklahoma. The findings confirmed that some of the emergency teachers' intrinsic reasons for entering the profession resembled those of traditionally and alternatively certified teachers (Mobra & Hamlin, 2020). Teachers primarily cited the desire to impact students' lives and help schools or communities meet students' needs as their main reason for entering the profession (Mobra & Hamlin, 2020). Some of these emergency certified

teachers' intrinsic motives were to work specifically with students who had special needs (Mobra & Hamlin, 2020). However, some of these individuals suggested teaching was a "contingency employment option" because the job market was saturated in their desired field of employment, or they temporarily became teachers because of their situation in life (Mobra & Hamlin, 2020, p. 12). Others noted they wanted to try out teaching, see if they liked the work, and/or were able to live off a teacher's salary before undergoing extensive training to become a teacher (Mobra & Hamlin, 2020).

Although Mobra and Hamlin's 2020 study had its limitations, it was the only study found to examine the intrinsic and extrinsic motivations of emergency certified teachers. It also pointed out that for some, emergency certification may be a temporary fix to financial concerns during a tight job market (Mobra & Hamlin, 2020). Therefore, these individuals may not be fully committed to their professional growth and may not have a long-term commitment to the profession (Mobra & Hamlin, 2020). Finally, the study highlighted questions about the factors that disincentivize individuals to become teachers through the more expensive and expansive traditional teacher programs rather than through the emergency certification pathway (Mobra & Hamlin, 2020).

Novice Teacher Struggles

Because emergency certified teachers are most likely to be novice teachers, with less teaching knowledge and classroom experience than even traditional or alternatively certified teachers, understanding novice teacher struggles is critical. Novice teachers eventually do become experienced teachers, and with this experience comes an increase in teacher effectiveness (Atteberry et al., 2015), but all teachers begin their careers as novices. What are the most common struggles for beginning teachers? Do these struggles differ between traditionally

trained teachers and those with alternative or emergency licenses? Research comparing these groups is relatively scarce. Therefore, understanding the challenges faced by novice teachers can shed light on the unique struggles experienced by each type of teacher.

Researchers have noted novice teachers have distinct notions about teaching and learning that are a result of attitudes and values they held before entering teaching induction programs or teaching itself, and these notions help them build meaning once they transition fully into the classroom (Lortie, 1975/2002; Nespor, 1985; Zeichner & Liston, 1987). Often, novice teachers have an inflated sense of their own ability to manage students, build relationships, or manage instruction (Weinstein, 1989) while struggling with understanding the dynamics of classroom life (Carter et al., 1987; Hollingsworth, 1989; Peterson & Comeaux, 1987; Sabers et al., 1991).

Although new teachers have an inflated sense of their own ability to manage students, once in the classroom, they often express concern about general managerial routines such as organizing their classrooms, establishing norms and procedures, and managing student behavior (Veenman, 1984; Reynolds, 1995). Classroom management, in fact, is one of the consistently shared frustrations new teachers express, and their evaluators and instructional coaches observe (Plax et al., 1986a; Plax et al., 1986b; Reynolds, 1995). One key factor in managing students is a teacher's ability to establish consistent instructional routines. Until year two, most new teachers are unable to monitor student behavior while simultaneously moving instruction forward (Schaffer et al., 1992).

Many novice teachers indicate they are overwhelmed by the "ambiguity, complexity, number, and interconnectedness of mundane problems" facing them in the classroom each day (White, 1989, p. 181). These educators indicate they struggle not only to identify but also to solve these daily problems (Olson & Osborne, 1991; White, 1989). Moreover, establishing social

relationships with students seems to be a key factor for novice teachers who cannot manage student behavior (Hollingsworth, 1990). Pinnegar (1989) found that new science teachers could identify students who interfered with classroom instruction. However, they were unable to solve these discipline problems because they lacked the knowledge of where to find resources and information that would help them (Pinnegar, 1989). Instead of systematically addressing student management issues in a structured manner, novice teachers focused exclusively on quickly solving behavior problems (Swanson et al., 1990).

Ericsson and Simon (1984) noted a difference between novice and expert teachers' approaches when formulating and accessing knowledge to solve problems. Expert teachers first seek to fully understand the problem before executing viable solutions (Chi et al., 1988). Novice teachers, in contrast, tend to focus on the solution to the immediate problem and address it superficially, which may eventually lead to other problems (Swanson et al., 1990). Furthermore, novice teachers often perseverate in trying to solve problems, which compounds the issues because their focus is deterred from more important classroom events (Van den Bogert et al., 2014). Failure to fully explore the causes of problems in the classroom often means novice teachers do not fully appreciate “the principles and abstractions underlying” them (Kim et al., 2019, p. 216). As novice teachers become more confident and experienced, they begin to formulate a more developed schema that allows them to fully explore classroom problems and systematically address them (Kagen & Tippins, 1991).

One recent study by Zhukova (2018) examined the struggles novice teachers had in managing students. In this study, novice teachers shared a wide range of difficulties and challenges in managing and inspiring students during their first year of teaching. In particular, these teachers struggled with managing their time, organizing the classroom, motivating

students, dealing with their individual differences and problems, managing resources, and selecting and adapting curriculum and instructional materials and supplies (Zhukova, 2018). By the end of the first year, participants reported they were primarily preoccupied with two distinct groups of concerns. First, they were preoccupied with their ongoing efforts to acquire and sustain positive esteem from students and colleagues (Zhukova, 2018). And they continued to struggle with effective instructional performance, pacing, classroom management, and student discipline (Zhukova, 2018, p.105).

These novice teachers also reported many unforeseen situations that differed from what they had learned in their university classes and practiced in the classroom during practicum placements (Zhukova, 2018). Finally, first-year teachers reported feeling professionally inadequate and isolated, frustrated, tired, vulnerable, and stressed out because of the unexpectedly demanding, intense, and challenging situations they encountered (Zhukova, 2018). However, by the end of the second year, novice teachers generally perceived themselves as capable of overcoming their first-year teaching challenges and coping with day-to-day crises (Zhukova, 2018).

Addressing diversity in the classroom has been an ongoing problem for both experienced and novice teachers (Paine, 1989; Rowan et al., 2021). Paine (1989) discussed a framework she suggested educators should use when approaching diversity issues within a classroom. She said teachers categorize perspectives, which she noted are “sophisticated explanations of complex social realities” (p. 3). Paine’s (1989) categories of teacher perspectives are as follows:

- Individual differences: Recognizing students’ biological and psychological differences.

- Categorical differences: Categorizing patterns of student differences according to abstract concepts, such as gender, social class, and race, without "giving direct attention to the social construction of the category," such as "Why should 'class' be a societal distinction?" (p. 3).
- Contextual differences: Considering the causes of individual and categorical differences and recognizing their societal roots and circumstances.
- Pedagogical differences: Considering the causes and implications of student diversity and using knowledge and skills that best meet the needs of diverse students.

Paine noted that novice teachers' understanding of student differences was "idealistic and more coherent in abstract than concrete situational terms" (p. 20). Because of their inability to contextualize student differences, novice teachers have an abstract and often naive understating of how to create a fair and equitable classroom. Student diversity is often seen as a problem and not a classroom phenomenon (Rowan et al., 2021). Therefore, novice teachers often have the potential to create inequity inside their classroom that reflects the inequity outside it (Rowan et al., 2021).

All teachers struggle to motivate disinterested students; however, novice teachers especially find it hard to distinguish between students who cannot complete classwork from those who refuse to complete it (Pinnegar, 1989). Too often, students appear unmotivated when they are actually anxious and unwilling to ask for assistance. Moreover, novice teachers were often unable to implement content-specific pedagogical strategies (Feiman-Nemser & Parker, 1990; Gomez, 1988; Hashweh, 1987; Reynolds, 1995; Reynolds et al., 1988; Shulman, 1985; Shulman, 1987; Wilson & Wineburg, 1988). Because of their lack of experience, beginning

teachers tend to create superficial lessons that do not encourage students to dive deeply into the concepts (Reynolds, 1995). Although they may be aware of student diversity, they struggle with appropriate measures to address such diversity and differentiate lessons accordingly (Paine, 1989; Reynolds, 1995). Experienced teachers may also grapple with this concept if they have insufficient subject-matter knowledge (Smith & Neal, 1989). However, as teachers gain experience, they can select more effective metaphors (instructional representations) to explain content for specific lessons (Williams, 1988).

Furthermore, novice teachers especially struggle with smooth transitions back to concepts when students' questions or misbehavior interrupt them (Borko & Livingston, 1989). They also find it challenging to gather data from formative assessments to determine instructional modifications of lessons or when a change in instructional strategies is necessary (Lienhardt & Greeno, 1986).

Novice teachers are also less aware of students' *a priori* knowledge than experienced teachers and are less likely to understand how to differentiate learning for those who lack this knowledge (Carter et al., 1988; Fogarty et al., 1983; Pinnegar, 1989; Shulman, 1987). Whereas veteran teachers draw from experience that helps shape their instruction around concepts and standards, novice teachers are often textbook driven because they cannot draw from previous classroom successes and failures in their past encounters with students (Reynolds, 1995). Through their classroom experiences, veteran teachers are better equipped to assess a textbook's adequacy and enhance instruction when necessary to cover content the textbook may have omitted (Schram et al., 1989).

Teachers have twofold allegiance (Jackson, 1968). First, they are dedicated to their students' success, but second, they must function as members of a larger organization (Jackson,

1968). This “dual allegiance” can prove difficult for all teachers but especially for those new to the profession, who often struggle to build social relationships with other adults in the building (Hollingsworth, 1990; Jackson, 1968). In fact, Hollingsworth (1990) noted that new teachers struggle to find meaningful connections with their fellow teachers. This struggle also might be one reason novice teachers have difficulty finding context that supports their professional growth, as they often struggle with reflecting on their own practice (Ferguson, 1989; Ross, 1989; Simmons et al., 1989; Zeichner & Liston, 1985). Some researchers suggest novice teachers lack the verbal facility to reflect on their own teaching (Kagen, 1990).

Despite their struggles during their first years on the job, traditionally trained novice teachers do have strategies for meeting their students’ learning needs (Darling-Hammond, 2018; Feiman-Nemser & Parker, 1990; Gomez, 1988; Grossman, 1991; Hashweh, 1987; Reynolds, 1995; Reynolds et al., 1988; Shulman, 1987; Swanson et al., 1990; Wilson et al., 2002; Xu et al., 2015). These strategies may not be available to teachers who bypass traditional educational pathways (Darling-Hammond, 2018; Xu et al., 2015). Traditionally trained teachers have background knowledge about educational pedagogy, lesson planning, student engagement strategies, classroom management systems, and other educational strategies taught at universities and colleges (Darling-Hammond, 2018; Xu et al., 2015). Alternatively and emergency certified teachers often lack this background knowledge. Most of them have not written lesson plans or worked with students in a classroom. Therefore, it is reasonable to assume that alternatively and emergency certified teachers will struggle to understand and implement the essential components of effective teaching.

Alternatively and Emergency Certified Teachers' Classroom Performance

As previously discussed, alternatively certified teachers complete college course requirements while simultaneously teaching in the classroom. Trainees acquire firsthand experience and responsibilities. However, classroom management and pedagogical skills are usually lacking (Gatlin, 2009). In 1983, eight states offered alternative certificates to teach; today, every state has developed alternative certification programs for teaching (Sanders & West, 2020). One added benefit of alternative certificate programs is their potential to draw in more people of color, males, and older people (Bireda & Chait, 2011). Alternative certification is one strategy states have initiated to replace teachers because of the shortage of qualified teaching candidates and as an endeavor to hire and retain minority teachers (Kini, 2017). For example, 20% of new hires in South Carolina were teachers obtaining alternative certificates (Woods, 2016).

Since the 1980s, researchers have proposed guidelines for successful alternative certification programs, and politicians have introduced new legislation guiding licensure (Butchart, 1986; Jacobs, 1994; Kadel, 1994; Kershaw & Blank, 1993; Morley, 1991; Raywid, 1994; Rogers, 1991). Though licensure and certification differ from state to state, high-quality programs have some standard features, according to the 2004 Department of Education publication titled *Alternative Routes to Teacher Certification* (p. 4):

- Programs recruit widely but select carefully.
- Prospective teachers hold at least a bachelor's degree.
- Candidates are screened using a rigorous rubric and process.
- Candidates are placed in schools (field-based).
- Candidates must participate in a flexible but rigorous course.

- If candidates are not directly working in a school, their experiences must simulate what it is like to teach in a school.
- Mentor teachers supervise and advise alternatively certified teachers.
- Candidates must meet high-performance standards to receive their license.

The U.S. Department of Education notes that successful alternative certification programs should provide mentoring support for recruits. Such support is essential. Rose (2019) found that novice teachers often leave the profession because they feel unsupported (Zhang & Zeller, 2016). Rose (2019) argued that support for novice teachers, such as professional development and mentorship, positively affected student achievement as novice teachers gained confidence.

Many researchers have maintained that traditionally trained teachers begin their careers more prepared and more confident to meet the needs of students, they receive higher evaluation scores, and their students achieve at higher levels than alternatively or emergency-trained teachers (Ashton et al.,1986; Evertson et al., 1985; Greenberg, 1983; Haberman, 1984; Linek et al., 2012; Olsen,1985). However, other researchers contend that this research is inconclusive because it does not consider the differences between field-based and non-field-based programs (Linek et al., 2012). Several researchers have noted that field-based trained teachers who are granted internships with mentors stay longer in the profession (Fleener, 1998; Freytag, 2002).

Nevertheless, alternatively and emergency licensed teachers often bring life experiences into the classroom that help them meet students' needs, especially those teachers who are starting a second career (Owings et al., 2006). Spann Casey (2019) examined the effectiveness of alternative teacher certificate routes by surveying and interviewing nine administrators about their perspectives as they observed them in the classroom. The study took place in three small school districts in South Carolina and included 12 schools and 20 administrators. The results

demonstrated that teachers with alternative teaching certificates were either sufficiently or well prepared for classroom effectiveness (Spann Casey, 2019).

The object of research by Bartholomew et al. (2018) was to establish school principals' perceptions of alternative teacher certification, specifically concerning career and technical education teachers. The principals who participated were in the Western United States, and 81% had held their position for one to 15 years (Bartholomew et al., 2018). Furthermore, all of the 39 principals who were surveyed were traditionally trained teachers (Bartholomew et al., 2018). Although the principals supported alternative certification, they perceived that alternatively certified teachers lacked instructional preparation and pedagogy, which sometimes impacted their effectiveness compared to traditionally certified teachers (Bartholomew et al., 2018).

Researchers also found differences in the perceptions of principals regarding alternatively certified teachers based on the grade level and socioeconomic status of the school (Bartholomew et al., 2018; Xu et al., 2015). Bartholomew et al. (2018) noted that alternatively certified teachers often demonstrate advanced proficiency in subject matter expertise that allows them to overcome a lack of instructional preparation effectively. However, these principals may also have been more tolerant of alternatively certified teachers' deficits and more supportive of their efforts to overcome these deficits because of the great need to hire and retain teachers (Bartholomew et al., 2018). Nonetheless, certificate type often influenced school leaders' hiring practices; principals were often less likely to hire alternatively certified teachers if traditionally trained teachers were available (Bartholomew et al., 2018). Principals assumed alternatively certified teachers would need more support and would be less effective in the classroom (Bartholomew et al., 2018). Other research findings corroborate these assumptions (Borman & Dowling, 2008).

Obviously, conflicting information exists concerning the effectiveness of alternatively certified teachers because the studies of Bartholomew et al. (2018) and Spann Casey (2019) differed in their summation from the studies of other researchers (such as Ashton et al., 1986; Evertson et al., 1985; Greenberg, 1983; Haberman, 1984; Linek et al., 2012; Olsen, 1985; Podolsky et al., 2019). These conflicting findings suggest more research is needed on the effects of alternatively and emergency certified teachers on student achievement, school climate and culture, and the teaching profession in general.

Because emergency certified teachers were a rarity until recently, there is necessarily a dearth of studies concerning their performance, effectiveness, or impact on school culture and climate. One exception is a study in California by Podolsky et al. (2019), which had mixed results. The large-scale study examined the effects of emergency certification and other credentialing processes considered to be substandard (Podolsky et al., 2019). Four hundred and thirty-five school districts in California with an enrollment of at least 400 (200 African American and Hispanic and 200 White) students provided data (Podolsky et al., 2019). The results showed that student achievement was related to teacher qualifications (Podolsky et al., 2019). The percentage of teachers who held substandard teaching credentials, including emergency certification, was negatively related to student achievement (Podolsky et al., 2019).

The average achievement for students of color was lower when their teachers held substandard teaching credentials. The result was the same for White students, but the decrease in their average achievement levels was smaller (Podolsky et al., 2019). Teacher experience level within a district was positively related to achievement for African American and Hispanic students (Podolsky et al., 2019). Some African American and White students in the 48 districts achieved higher scores than expected (Podolsky et al., 2019). The researchers concluded that

teacher qualification was the most crucial factor affecting student achievement, and African American and White students scored higher because of effective teachers (Podolsky et al., 2019) (Podolsky et al., 2019).

Although these studies rarely agree on which certification makes the best teacher, some consensus exists about teacher effectiveness. As previously stated, many studies have postulated that student achievement is directly connected to the quality of the teacher (such as Sutcher et al., 2016). However, numerous studies suggest classroom teaching experience is the most consistent predictor of teacher effectiveness (e.g., Dee, 2004; Harris & Sass, 2007b; Jepsen, 2005; Nye et al., 2004; Rivkin et al., 2005; Rockoff, 2004). While this assertion may be true, studies also indicate that after approximately five years of teaching, teachers' experiences are no longer a factor in their effectiveness, just as experience ceases to affect the efficacy of workers in other professions. (Harris & Sass, 2007a). There has been no substantial exploration of why this is the case (Harris & Rutledge, 2010).

More research is needed to examine whether the acquisition of general teaching knowledge, the development of skills specific to a particular grade, school, or subject, or other specific reasons increase teachers' effectiveness over time. Additionally, little research exists on the effectiveness of emergency certified teachers; however, there is strong reason to believe emergency certified teachers are the least prepared to work in classrooms. More evidence is needed to understand the similarities and differences between the knowledge and preparation of traditional, alternatively, and emergency certified teachers.

Chapter 3: Conceptual Framework

The purpose of this study is to investigate differences in background, personality, and job-related characteristics between novice teachers who hold distinct types of teaching licenses. The research questions guiding this study are as follows:

R.Q. 1: How do traditionally, alternatively, and emergency certified novice teachers differ in background, personality, and job-related characteristics such as teaching knowledge, grit, self-efficacy, and job satisfaction?

R.Q. 2: Does certification status moderate the relationship between teachers' personality, job-related characteristics, and job satisfaction?

The previous chapter highlighted that teacher turnover and the lack of traditionally certified candidates to fill teacher vacancies have increasingly affected school districts both nationally and internationally (Cross, 2017; Darling-Hammond, 2003; Garcia & Weiss, 2018; Ingersoll, 2001; Loeb et al., 2004; Ostroff, 2017; Partelow, 2019; Sutcher et al., 2016). It also illustrated that school districts have increasingly depended upon alternatively and emergency (nontraditionally) certified teachers to fill these vacancies (Cross, 2017; Darling-Hammond, 2003; Garcia & Weiss, 2018; Henke et al., 2000; Ostroff, 2017; Partelow, 2019; Sutcher et al., 2016).

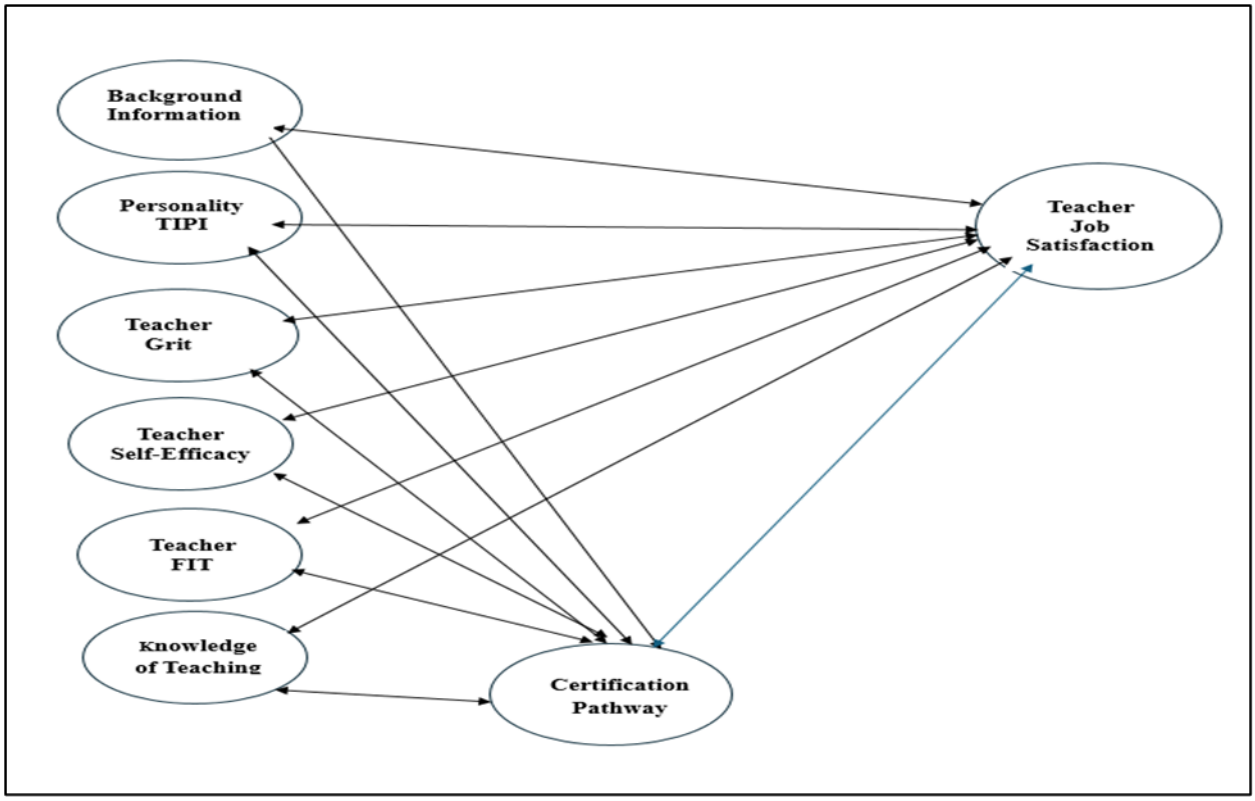
Nevertheless, there is reason to suspect that teachers holding these diverse types of certifications differ in background, personality, and job-related characteristics. For example, traditionally trained teachers have spent considerable time preparing for a teaching career, taking education courses, and participating in education internships and mentorships. In contrast, nontraditionally trained teachers enter the classroom with little, if any, training in education.

Without these early experiences, these teachers may not believe they have the tools necessary to meet their students' needs (i.e., self-efficacy).

Furthermore, nontraditional teachers may lack the grit necessary to become teachers because they never committed formally to the profession. Attending education classes, participating in internships, and completing student teaching are all activities that require grit, but nontraditional teachers do not have to participate in these enriching experiences.

Figure 1

The Conceptual Framework for the Study



Note. Figure 1 displays the conceptual framework for the research questions guiding study satisfaction and the teaching profession more generally.

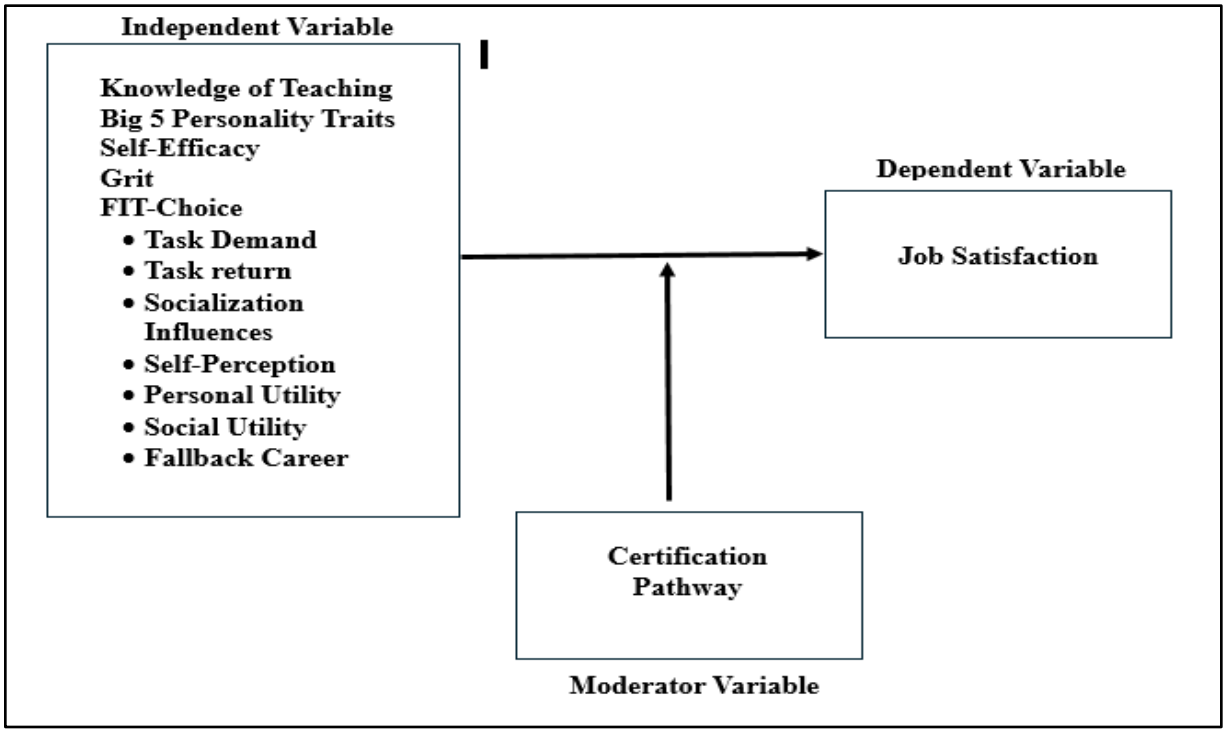
Participating in teacher education programs may signal that traditionally trained novice teachers have not only the self-efficacy, grit, and preparation necessary to succeed in the profession but also a commitment to it. Figure 1 displays the conceptual framework with respect

to the research questions guiding the study satisfaction and the teaching profession more generally.

Understanding these differences is essential to determining their implications for teaching, leadership, and policymaking. In this chapter, I will use extant research to develop a comprehensive conceptual framework for the purpose of hypothesizing about these differences and providing a model through which to test them empirically. Figure 2 displays a preliminary representation of the conceptual framework with respect to the research questions guiding the study.

Figure 2

Diagram Of Moderating Variable



Note. Figure 2 represents the role of the moderator variable, certification pathway, acts upon the relationship between the dependent variable, job satisfaction, and the independent variables, knowledge of teaching, personality, self-efficacy, grit, and suitability for the teaching profession.

This chapter is organized into five sections: personality characteristics and job satisfaction, predictors of teacher effectiveness, challenges of measuring teacher effectiveness, and self-efficacy and grit as they relate to teachers' job satisfaction. Each of these sections concludes by advancing one or more hypotheses for this study to test.

Personality Characteristics and Job Satisfaction

Recently, researchers have called for renewed interest in nontraditional predictors of teachers' job effectiveness and satisfaction (Bastian et al., 2015; Bastian & Marks, 2017; Kell, 2019; Rockoff et al., 2011). The hope is that these "nontraditional" predictors might shed some light on what makes some teachers more effective and more satisfied with their jobs than others. Researchers have recently investigated the relationship between teachers' job performance and personality, suggesting personality traits might be a useful consideration when selecting and hiring teachers (Kennedy, 2012; Rose et al., 2014; Thornton et al., 2005). District human resource professionals, superintendents, and school principals are only a few of the many who would benefit from such a strategy. Furthermore, because the science of personality traits has become more widely accepted, understanding the effect personality has on novice teachers' job satisfaction may provide school leaders with strategies to target professional development for these novice teachers better. The Big Five model provides a framework for examining the relationship between personality, job satisfaction, and licensure certification pathway. Below is a discussion of the Big Five and its justification as a variable.

Historical Overview of the Big Five Model

Initial personality research emerged at this time through two distinct paths. First, it emerged as an empirical model steeped in the etymological analysis of personality terms used in ordinary language across cultures (Terracciano & McCrae, 2007). In other words, personality

dimensions did not emerge from a specific theoretical perspective but rather from the "natural language terms people use to describe themselves and others" (John & Srivastava, 1999, p. 103). Second, factor analysis of different theories based on personality inventories (Markon et al., 2005) contributed to the emergence of personality theories such as the Big Five, or Five-Factor Model (FFM) (Terracciano & McCrae, 2006, p. 176). These early personality scientists did not agree on a framework to organize their findings systematically and assimilate them. The taxonomies they described were often complex theoretical measures (Block, 1977), influenced by trends rather than scientific research (Sechrest, 1975). They were either inappropriately and dimensionally misaligned (Barrick et al., 2001; Schneider et al., 1995) or overly complicated because they split a wide range of traits into increasingly narrower paradigms that often were not practically correlated (Goldberg, 1971). Problems such as these hampered researchers' progress and created mistrust and skepticism of personality science (Guion & Gottier, 1965; Kendrick, 1964; Peterson, 1968; Vernon, 1964). Zickar et al. (2013) described this era as "the dark days of personality testing" (p. 182).

The early twentieth century ushered forth a more systematic, scientific study of personality traits and the emergence of the Big Five personality taxonomy (Fernald, 1912; Heymans & Wiersma,1906, as cited in Van Der Werff & Verster, 1987). The Big Five was not constructed as a comprehensive personality theory; instead, it was developed as a taxonomy to catalog natural language and scientific concepts of traits into a single classification framework that allowed researchers to account for the structural relationships among personality traits (e.g., Cantor & Mischel, 1979; Costa & McCrae, 1992; Digman, 1990; Goldberg, 1993). Personality traits are defined as constant behavior patterns illustrating individual personality differences that are "products of the interaction between culturally dependent social roles and individual role

identities" (Matsumoto, 2007, p. 1,286). These researchers introduced a variety of techniques (e.g., interviews, perceptual tests, rating scales) to study personality (e.g., Digman, 1990; Fernald, 1912; Heymans & Wiersma,1906, as cited in Van Der Werff & Verster, 1987), and these techniques are still in use today (Barenbaum & Winter, 2008; Dumont, 2010; R. Hogan, 1991; McAdams,1997).

By the 1980s, the Big Five began to emerge as a predominant model to explain personality (Borgatta, 1965; Digman, 1991; Digman & Takemoto-Chock, 1981; Norman, 1963; Terracciano & McCrae, 2005). Instead of replacing previous taxonomy systems, the Big Five nomenclature integrated various personality systems into a shared nomenclature (John & Srivastava, 1999). By 1985, Costa and McCrae had not only conducted a series of research studies that verified the Big Five's ubiquity but also developed an inventory demarcation system that allowed researchers to study each domain (Digman, 1991). Thus, the establishment of the Big Five system allowed researchers to categorize large batches of data at the most comprehensive level of abstraction and organize this data by personality dimensions (John & Srivastava, 1991).

The Big Five uses the word "trait' to describe personality attributes in each of the five domains. The term "trait" does have some divergent connotations (Guion, 1987) because it derives from biology, where traits were believed to be inherited (Kell, 2019) and static (Snow et al., 1984). The term "trait" has been described as "treacherous" (Snow et al., 1984, p. 53) because it implies a "sense of immutability or permanence" (Heckman & Kautz, 2014, p. 6). Predominant contemporary theory suggests that personality may, in fact, change modestly over an individual's lifespan (Roberts & DelVecchio, 2000; Roberts et al., 2006). This gradual change is almost indiscernible (Roberts & DelVecchio, 2000; Roberts et al., 2006) and results from

significant life experiences (Lüdtke et al., 2011; McCrae & Costa, 2003; Roberts et al., 2003; Specht et al., 2011). Personality also may be modified through clinical (Roberts et al., 2017; Tang et al., 2009) or nonclinical intervention (Hudson & Fraley, 2015; Magidson et al., 2014). In this research paper, I will use the terms "trait" and "character" interchangeably. Given this information, researchers investigating the relationship between teachers' job satisfaction and personality traits must be mindful that these traits are not inborn, immutable, or innate (Kell, 2019). Therefore, the traits of novice teachers may be modified through their experiences inside and outside the classroom (Kell, 2019).

Personality researchers continue to argue that personality traits are universal, biologically based characteristics that therefore transcend language, culture, traditions, and cultural differences (Angleitner et al., 1990; De Raad et al., 1988; Hofstee et al., 1997; Wiggins & Trapnell, 1997; Yamagata et al., 2006). Researchers argue that the Big Five taxonomy offers a consolidated framework that universally describes personality because it is lexically based on language itself and is fundamental to human life (John & Srivastava, 1999). Cross-cultural tests of the Big Five in over 50 societies across six continents have supported the existence and universality of this taxonomy system (McCrae, 2002; McCrae & Terracciano, 2005). For instance, McCrae and Terracciano (2005) examined the variance of observer rating data from 51 cultures and discovered a 95% variation within cultures and only about 5% difference across cultures. Therefore, their study affirmed that although differences across cultures exist in aggregated personality traits, the size of these differences is quite insignificant compared to the range of distinct differences within a culture. Today, the Big Five model is indisputably the most pervasive and widely accepted trait framework researchers use (Funder, 2001; Judge & Zappa, 2015).

As a hierarchical model, the Big Five integrates various personality descriptions into a universal framework (John & Srivastava, 1999, p. 103). The Big Five taxonomy divides traits into bipolar opposites (such as extraversion vs. introversion) with a range of possibilities (such as extreme extraversion to extreme introversion). Finally, within the scope of possibilities, even more specific traits, such as talkativeness or outgoingness, may be assessed. An individual's score on one of the Big Five categories is usually independent of another category and, therefore, does not influence the other four dimensions. A description of each category follows:

1. *Conscientiousness vs. lack of direction:* The level of an individual's organization and work ethic. Conscientious people have qualities such as being responsible, systematic, hardworking, and meticulous. Unconscientious people have qualities such as being negligent, lazy, thoughtless, and undependable. Conscientiousness is positively allied with consistency, marital stability, educational accomplishment, and job stability. Highly conscientious people embrace social standards, often postpone gratification to meet long-term goals, and strive not to let people down (Kell, 2019; McCrae & Costa, 2008).
2. *Agreeableness vs. antagonism:* The level of an individual's friendliness and kindness. Agreeable people have qualities such as sincerity, generosity, and cooperation. Those who are disagreeable have qualities such as being unemotional, egotistical, and wary. Agreeable individuals use negotiation, rather than retaliation, to resolve conflicts and can regulate their frustration effectively when negotiating through conflict. Highly agreeable people prefer harmonious relationships with others and strive to maintain this harmony (John & Srivastava, 1999; Kell, 2019; McCrae & Costa, 2008).
3. *Neuroticism vs. emotional stability:* The level of an individual's calmness and tranquility. Neurotic people exhibit qualities such as nervousness, discontentedness, and anxiousness.

Emotionally stable people, therefore, exhibit qualities such as tranquility and cool-headedness. Emotionally stable individuals tend to exhibit qualities such as self-efficacy, stability in relationships, and individual well-being. In contrast, neuroticism is associated with psychopathic disorders such as schizophrenia and bulimia. Highly neurotic people tend to act impulsively when upset and are unpredictable in their responses to stress (John & Srivastava, 1999; Kell, 2019; McCrae & Costa, 2008).

4. *Openness vs. closedness to experience:* The level of an individual's creativity and curiosity. Openness may be described as an individual's eagerness to try new experiences. People who exhibit openness are imaginative, creative, scholarly, and inquisitive. Those who do not exhibit openness tend to be traditional, unsophisticated, closed to new experiences, and sometimes fearful. Openness is positively associated with divergent thinking, political liberalism, and art appreciation. Highly open people who are competent in understanding other people's emotions are often described as empathetic; they seek the company of other highly open people (John & Srivastava, 1999; Kell, 2019; McCrae & Costa, 2008).
5. *Extraversion (also spelled "extroversion") vs. introversion:* The level of an individual's sociability and enthusiasm. Extroverts tend to be chatty, bold, animated, and spirited, whereas introverts are often cautious, careful, and wary. Extroverts gain energy from social interaction and, therefore, become energized, inspired, and stimulated when conversing with others in discussions about a variety of topics. They often seek out leadership opportunities because they are comfortable asserting themselves in a group. Although introverts can engage quite a lot in social situations, they need alone time to

recharge after being with others (John & Srivastava, 1991; Kell, 2019; McCrae & Costa, 2008).

Other Measures Used to Assess Personality

As aforementioned, academic researchers prefer the Big Five model of personality to other models (Woods & Hampson, 2005). Researchers have empirically validated the traits found consistently in this model with other personality traits such as self-esteem and self-efficacy (Jonason et al., 2011; Storme et al., 2016), affect (Hofmans et al., 2008; Romero et al., 2012), and aggressiveness (Bartlett & Anderson, 2012). Moreover, researchers have constructed various instruments to measure these traits. For instance, Costa and McCrae (1992) developed the 240-item Revised NEO Personality Inventory and the 60-item NEO-Five Factor Inventory (Rammstedt & John, 2007). First developed in the late 1980s, the Big Five (BFI-44) was one of the first short but reliable personality measures developed for broad research studies that were not solely focused on personality (Benet-Martinez & John, 1998; John et al., 1991; John et al., 2008; John & Srivastava, 1999; Rammstedt & John, 2007). Researchers continue to identify even shorter personality instruments yielding reasonably accurate results across cultural and geographic boundaries (Ziegler et al., 2014).

Single-item measures have been growing in popularity and have been credited with reducing the fatigue, frustration, redundancy, and boredom that often occur when research participants respond to highly related questions repeatedly (Robins et al., 2001; also see Saucier, 1994). Burich (1984b, 1997) correctly predicted that these shortened personality instruments yield respectful psychometric results and, depending on the study, often provide results as dependable as those produced by more extended, more sophisticated scales. For instance, Burisch (1984) found that shortened scales did not demonstrate decreased validity but

outperformed longer scales in 10 out of 19 cases. In other words, decreasing the number of questions asked in personality measures sometimes enhanced rather than mitigated the measure's validity.

Researchers have noted that Burisch's findings validate that longer scales are not necessarily psychometrically superior. The costs of using a short scale over a longer one and short scales' relative efficiency make them an attractive research tool for a project with several variables. In this study with five variables, the shorter personality measure was the preferred option because I did not want a long survey to undermine novice teachers' willingness to take it. Two of the shortened measures I considered for this research project were the Big Five Inventory-10 (BFI-10) (Rammstedt & John, 2007) and the Ten-Item Personality Inventory (TIPI) (Gosling et al., 2003).

I considered these shorter personality measures because personality was only one of the five variables I measured. Moreover, the intersection between variables such as personality, self-efficacy, and grit and their effect on certification is the primary focus of this project. Because I was measuring five variables (teacher demographics, teacher qualifications, personality, self-efficacy, and grit), participants in the study would be answering numerous questions to measure each variable, so it was best to identify a brief yet reliable measure. Because of their brevity, I considered the BFI-10 and TIPI. For this study's purpose, both tests were adequate in terms of the following qualities:

- Perceived predictability by individuals, peers, and observers,
- Alignment of the Big Five traits,
- Test-retest reliability.
- Convergence ratings from individual test takers and observers,

Indeed, research comparing the TIPI and BFI-10 has suggested that either instrument is a reliable tool to measure personality for this research project (Gosling et al., 2003; Nunes et al., 2018; Rammstedt & John, 2007). Rammstedt and John (2007) noted that the research results for the BFI-10 indicated that the measure was at least as dependable as the results for the TIPI. The BFI-10 was written in English and German, allowing for cross-cultural research of the instrument (Rammstedt & John, 2006). Some data suggested that the five-factor emerged more clearly in the BFI-10 than with the TIPI. However, on other measures, such as discriminant validity, TIPI's absolute intercorrelations were higher than those of BFI-10. Rammstedt and John (2006) noted that BFI-10 maintained substantial reliability and validity compared to BFI-44, despite its limitations. They suggested that, given its brevity, the BFI-10 possesses satisfactory psychometric properties despite noticeable losses compared to the full-scale BFI. In conclusion, Rammstedt and John noted that when time is not limited for specific studies, a full-length Big Five offers psychometric advantages. Moreover, they agree with Gosling et al. (2003) that shorter measures may be used successfully for multivariant research or for projects where time limitations prevent a lengthier measure (Rammstedt & John, 2006).

Like the BFI-10, the TIPI assessment is a quick, highly utilized psychological research tool (Gosling et al., 2003). Gosling et al.'s article has been cited with more than (>7,521 citations in Google Scholar) and Rammstedt & John's article about BFI-10 (>3,225 citations in Google Scholar). Validation studies in a wide variety of languages have validated the initial TIPI research (Chiorri et al., 2015; Muck et al., 2007; Renau et al., 2013). The results of these studies have validated the reliability coefficient in the original study ($\alpha = 0.39–0.72$) (Nunes et al., 2008). Additionally, these validation studies have revealed that TIPI has a dependable four-week test-retest measure (Nunes et al., 2008). TIPI collaborative studies reveal that this measure

maintains its factor structure, which is decisively aligned to that of the Big Five inventory and produces results that correlate with similar measures in longer personality tests for self-esteem, affect, and aggressiveness. After reviewing the research between BFI-10 and TIPI, I concluded the TIPI measure would best suit this research project because it is more widely used and validated.

I hoped to examine differences in personality among teachers who have been traditionally, alternatively, and emergency certified using the Big Five model would reveal distinct differences in these groups. Although examining personality differences among different pools of certified teachers is an unexplored educational research area, I proposed that two areas, in particular, might reveal crucial differences. First, I hypothesized that traditionally trained teachers would demonstrate more conscientiousness than emergency certified teachers. Because conscientiousness is aligned with purpose, competence, dutifulness, and order, those who have selected education as a career and have dedicated time and energy to its study will have higher scores on the TIPI in this area than those who are alternatively and emergency certified. Conversely, teachers who have haphazardly entered the profession will demonstrate less conscientiousness on TIPI.

Additionally, I predicted that traditionally trained teachers would be more agreeable than nontraditionally trained teachers because they enter the profession with more understanding of the history of teaching, lesson planning, classroom management, and instructional effectiveness, and they have experience working directly in a classroom as a student teacher. Therefore, traditionally trained teachers would have higher scores on agreeableness than those who are nontraditionally trained. This observation was not to suggest that traditionally trained teachers are more agreeable people than nontraditionally trained teachers but that their training would

facilitate more agreeableness in their score because they have been indoctrinated into the profession in a manner that is not necessarily true for their nontraditional counterparts.

Furthermore, I proposed that nontraditional teachers might have higher scores in openness than traditionally trained teachers because they are open to new experiences, even though they may not have the training. Moreover, the willingness to take risks and try something new might be higher in nontraditionally trained teachers. Finally, I proposed that there would be no difference between nontraditional and traditional teachers' scores on extraversion and neuroticism. By examining personality as it relates to certification, I hoped to have a deeper understanding of the types of people attracted to emergency certification and assess similarities and differences between these divergent licensure pathways. Thus, the first hypothesis I advanced in this study is as follows:

> *Hypothesis 1:* Traditionally, alternatively, and emergency certified teachers will differ significantly in specific personality characteristics. Specifically, traditionally trained teachers will demonstrate more conscientiousness than emergency certified teachers. Alternatively and emergency certified teachers may have higher scores in openness than traditionally trained teachers.

The Relationship Between Job Satisfaction and Personality

Industrial-organizational researchers have investigated the connection between job satisfaction and job performance since the landmark Hawthorne studies (Roethlisberger & Dickson, 1939). Locke (1970) argued that emotions like fulfillment and displeasure profoundly affected people's propensities, reactions, and inclinations (p. 484). Furthermore, Locke argued that although emotions may be incentives for particular responses, they are not determinants of action. Thus, performance is related to specific tasks or work goals, and "these goals are, in turn,

determined by the individual's values, knowledge, and beliefs in the context of the situation as he understands it" (Locke, 1970, p. 484). Job satisfaction, therefore, is the product of performance—an outcome, not a determinant of performance (Locke, 1970, p. 498). Researchers have methodically examined the roles of personality traits, job satisfaction, and work-related behaviors for the past forty years (e.g., Adler, 1996; Costa, 1996; Furnham et al., 2005; Judge et al., 2001; Kell, 2019; Kennedy, 2012; Petty et al., 1993; Rose et al., 2014; Salgado, 1997; Thorton et al., 2005). Researchers have also studied the relationship between employees' attitudes and opinions about their work related to their personality type (Arvey et al., 1989; Schneider & Dachler, 1978; Straw et al., 1986; Straw & Ross, 1985).

Although job satisfaction may be defined as "the extent to which employees like the components of their job," over the years, researchers have suggested other varying constructs, sometimes in direct contradiction with one another (Spector, 1997, p. 2). These definitions vary, from Locke's (1969) notion of the pleasurable emotional state that results from one's assessment of one's job or job experiences to Vroom's (1964/1994) concentration on employees' emotional identification with their job based upon conscious choices to maximize pleasure and minimize pain. Vroom proposed that an employee's job performance also depends upon skills and factors such as personality, knowledge of tasks, experience, and cognitive ability. Other researchers, such as Schultz (1982), proposed that a positive psychological disposition explains employees' satisfaction with their work. In contrast, Milkovich and Boudreau (1997) defined job satisfaction as a pleasurable response to the essential functions and responsibilities of one's position or job. Despite variations in definitions, many researchers still contend that understanding the components of employees' job satisfaction is useful (Adler, 1996; Costa, 1996; Furnham et al.,

2005; Judge et al., 2001; Kell, 2019; Kennedy, 2012; Petty et al., 1993; Rose et al., 2014; Salgado, 1997; Thorton et al., 2005).

Job satisfaction continues to intrigue managers empirically because of the philosophical belief that "satisfied employees" will result in more profitable economic returns. Job satisfaction has been positively associated with more efficient job performance (Mafini & Pooe, 2013), organizational citizenship behaviors (Foote & Ta, 2008; Swaminathan & Jawaher, 2013), improved worker health (Faragher et al., 2005), and heightened working environments (Newsham et al., 2009). Moreover, job satisfaction is positively linked with occupational characteristics such as effective administration control, teaching competence, and a satisfying work environment and culture (Ma & MacMillan, 1999). Conversely, employees' job satisfaction is inversely associated with injury-related absenteeism (Drakopoulos & Grimani, 2011), general employee ill-health (Hanebuth, 2008), and job stability (MacIntosh & Doherty, 2010; Tschopp et al., 2014). Other factors, such as counterproductive interpersonal and organizational behaviors (Mount et al., 2006), job-related stress (Boudreaux et al., 1997), and psychological distress (Moen et al., 2013), are affected by employees' job satisfaction.

I contend that emergency- and alternatively certified teachers are missing vital skills necessary for them to feel as much job satisfaction as would a traditionally trained teacher. Most have taken few, if any, education classes and, therefore, may be uninformed about the critical components of effective classroom instruction, such as lesson planning, pedagogy, instructional strategies, classroom management, and child psychology. Traditional teachers come into the classroom having taken coursework discussing these critical components of effective instruction and, therefore, are not learning these strategies while on the job. Unless their previous coursework or their job experiences require alternatively or emergency certified teachers to

acquire these essential job skills, these teachers will enter the classroom unprepared to meet the challenges. They will need to acquire these skills quickly through on-the-job training. It seems logical that lacking this knowledge will make nontraditionally certified teachers less satisfied with their work than traditionally trained teachers are.

For instance, teachers who score higher in conscientiousness will most likely experience more satisfaction with their work than teachers who score lower in this area. It is reasonable to hypothesize that traditionally trained teachers will score higher in conscientiousness because they planned to become teachers and took the necessary coursework to be prepared for a teaching career. Nontraditional teachers often fall into their position as classroom teachers, and therefore, it is reasonable to believe they may score lower in this area. However, work experience, age, and education may mitigate this lack of knowledge so that some alternative and emergency teachers will score as high in this area as traditionally trained teachers.

It is also reasonable to believe that a connection exists between openness and job satisfaction. Teachers who are curious and open to new experiences and ways to work effectively will most likely be more satisfied with their jobs. In this area, alternatively and emergency teachers may score as high as traditionally trained teachers do because they are entering a new career without the training to be successful. It seems logical to assume that the willingness to try something novel without specific training would lead an individual to score higher in the area of openness.

Finally, it also seems that teachers who score high in agreeableness and emotional stability will also be more satisfied with their jobs. Because teaching is a collaborative venture, those who are agreeable, work effectively in teams with their colleagues, and can build meaningful relationships with their students will be more content with their work and, therefore,

more satisfied with it (Harris & Rutledge, 2010). Likewise, teachers who are emotionally stable and unaffected by the day-to-day struggles of classroom teaching will be more satisfied with their work. Good teachers are patient, and their self-efficacy allows them the emotional stability to work through the trauma their students bring to the classroom and the demands parents, administrators, and others place on them (Bandura, 1977; Hoy, 2000; Hoy & Woolfolk, 1993). These observations lead to Hypothesis 2.

> *Hypothesis 2:* Teachers who score high in conscientiousness, emotional stability, and openness will have higher job satisfaction (e.g., Furnham et al., 2005; Furnham et al., 2008; Straw & Ross, 1985). Neither extraversion nor agreeableness will be associated with job satisfaction.

Teacher Effectiveness, Job Satisfaction, and Personality

Harris and Rutledge's (2010) comparative study of models and predictors of effectiveness for teachers and other professionals is also an essential conceptual foundation for this study. To date, this is one of the few research studies that fully includes non-educational professions as part of an extensive effort to understand teaching profoundly and to develop future directions for educational research about teacher effectiveness and job satisfaction (Harris & Rutledge, 2010). The notable aspect of this study is the researchers' incorporation of empirical evidence into their examination of existing models and their subsequent testing of hypotheses. Even though differences exist between education and other occupations, Harris and Rutledge (2010) argued that other complex occupations and professions were quite like teaching, and therefore, extensive research on these occupations might provide insights into teacher effectiveness.

Harris and Rutledge (2010) observed that those whose work depends upon relationships with coworkers are more likely to value the work environment more than those whose work is independent of others. To these workers, the work environment is an essential condition of employment and job satisfaction. For others, the work environment is not a factor in their effectiveness because it is independent of the work context (Page & Hong, 2001). In other words, some workers will excel regardless of the work environment (Harris & Rutledge, 2010). These people exercise a set of skills that makes them effective in a multitude of work environments (Harris & Rutledge, 2010).

Moreover, in terms of group dynamics, researchers found that groups of participants who had diverse sets of skills made better decisions than did groups with less diversity, even when the latter group had higher levels of average cognitive ability (Harris & Rutledge, 2010). This finding suggests that having a diversity of specific characteristics may be a more important goal than having workers who have a specified characteristic, such as extraversion (Page & Hong, 2001). Research on effective teachers suggests that diversity of skills is beneficial to teachers in meeting their students' needs (e.g., Covino & Iwanicki, 1996; Gardner, 1983; Langer, 2001; Molnar et al., 1999; Tomlinson, 1999; Vygotsky, 1978). Diversity of personality types might also better meet the needs of students.

Harris and Rutledge (2010) noted that effectiveness has been difficult to define and that the measures most models use to define it were selected because of "convention and convenience" (p. 924). Defining teacher effectiveness is equally difficult because of the complex nature of teaching and the numerous contexts in which teachers work (Stronge et al., 2011). In fact, there appears to be little, if any, consensus on how to define teacher effectiveness or measure it meaningfully. Politicians, pundits, school administrators, and social scientists have

debated for years whether to base evaluations of teachers' effectiveness on teachers' qualifications, instructional pedagogy, strategies, and practices, the effectiveness of teachers' instruction, or a combination of all these components. Nevertheless, despite the introduction of test scores as a component of teacher evaluation, administrators' evaluations continue to be prominently subjective measures of teacher effectiveness (Harris & Rutledge, 2010) because they are "arguably the most comprehensive of overall performance" (Borman et al., 2003, p. 299).

Harris and Rutledge (2010) examined four predictors of worker effectiveness: cognitive ability, experience, personality, and educational background. Cognitive ability is the most studied of the four and is considered a vital factor in job effectiveness (Harris & Rutledge, 2010; Schmidt & Hunter, 1998; Schmitt et al., 1984). Schmitt et al. (1984) noted that the more complex the job, the more likely cognitive ability plays a critical role in determining an employee's effectiveness. Industrial, organizational, and occupational psychological literature consistently has found that personality is a more significant factor in workers' effectiveness than education level (Ariss & Timmins, 1989; Borman et al., 2003; Hunter & Hunter, 1984; Schick & Kunneck, 1982; Schmidt & Hunter, 1998; Schmitt et al., 1984). However, economists noted that education *does* influence annual earnings. For instance, in the "return to schooling" literature, one additional year of school often increases annual earnings by 5 to 10% (Krueger & Lindahl, 2001). Such findings are at the heart of a debate among economists who are wrestling with whether "the economic return to schooling" reveals the human capital advantage of increased education or whether people who return to school have "specific personality traits" that compel them to return to school and that are "positively related to worker effectiveness" (Harris & Rutledge, 2010, p. 928).

Some researchers believe these contradictory findings suggest personality may play a factor in people's ability to complete school. Ultimately, the reason education has a positive effect on worker performance is that workers often see an economic return for their pursuit of education (Weiss, 1995). However, other researchers argue that economic capital drives individual decision-making about attending or continuing one's education (Efklides et al., 1997; Krueger & Lindahl, 2001).

Harris and Rutledge (2010) also discussed four conceptions of teaching, which have inherently distinct features. They used the term "conceptions" because they did not believe the four were actualized enough to be called models; instead, they were broad in nature and did not have defined theory-driven relationships between predictors of effectiveness and effectiveness itself. These four conceptions are teaching as labor, teaching as craft, teaching as profession, and teaching as art (Darling-Hammond et al., 1983; Mitchell & Kirchner, 1983; Rowan, 1994). These conceptions differ in their focus on teacher interaction.

Teaching as labor focuses primarily on the bureaucratic aspects of teaching, which tend to be more task-oriented and focused on the classroom as a small piece of a more extensive bureaucracy (Harris & Rutledge, 2010). Even though classrooms, individually and collectively, are an integral part of this larger bureaucracy, teachers enjoy relative autonomy in their respective classrooms, which highlights the weak administrative control of teachers' day-to-day instructional decisions (Weick, 1976). Like teaching as labor, the teaching-as-craft approach focuses primarily on managing students and classroom resources, such as instructional strategies, curriculum, and time (Harris & Rutledge, 2010). Whereas teaching as labor and craft tends to be more bureaucratic, teaching as a profession and teaching as art are similar because they focus primarily on individual teachers' knowledge, ability, and effectiveness. Finally, although

teaching as labor and teaching as craft focus on the interaction between teachers and other education professionals as they tangentially relate to pedagogical interactions with students, teaching as craft and teaching as art focus primarily on the relationship between teachers and students. It seems apparent that although these conceptions describe aspects of teaching, they must be examined as a whole to capture all elements of teaching.

The Challenges of Studying Teachers' Personality

A chapter in the first edition of *Handbook of Research on Teaching* (Getzels & Jackson, 1963) effectively ended the thoughtful study of the relationship between educators' personality traits and teacher effectiveness and performance (Kell, 2019, taken from personal communication from G. Sykes, February 2, 2017). In this chapter, Getzels and Jackson (1963) contend that for nearly 50 years, the research studies on the relationship between personality and effectiveness produced no significant findings that clarified this relationship, and what they discovered was "pedestrian" in nature (p. 574). Getzels and Jackon contended that two weaknesses existed with this path of research.

First, they argued that the studies were conducted in a "theoretical vacuum" without adequate theory to support them (Getzels & Jackson, 1963, p. 575). Kell contended that the Big Five paradigm is a taxonomic framework that allows researchers to classify and analyze their results using a consistent theoretical framework (Kell, 2019, p. 5). Second, Getzels and Jackson (1963) noted that research had failed to provide a meaningful and appropriate definition of teacher effectiveness and appropriate measures to assess it. These researchers agreed that this problem still plagues scholars (Harris et al., 2014; Harris & Rutledge, 2010). However, Kell (2019) proposed the "solutions" to the problems Getzels and Jackson's (1963) criticism of teacher personality research generated rests in the "personality psychology [of] the 1980s and

1990s," which has not permeated K–12 teacher research (p. 5). Echoing Cheng and Zamarro's (2016) argument, Kell (2019) suggested that the lack of findings is the result of the lack of research, which makes "retrospective analysis difficult" because of the lack of collected data (p. 5).

In many jobs, supervisors are responsible for evaluating employees' effectiveness, rating them with performance criteria (Motowidlo & Kell, 2013; Viswesvaran et al., 2005). Teacher evaluation, in contrast, is known for its complexity and crosses a wide range of dimensions (Darling Hammond, 2010; Harris & Rutledge, 2010). Most often, teacher effectiveness is measured directly by principals or other educational experts who complete a teacher observation using a tool to examine individual teachers' performance and effectiveness in the classroom (Campbell & Ronfeldt, 2018; Harris & Sass, 2014) and indirectly using value-added models to assess teachers' effect on students' outcomes (Harris & Rutledge, 2010; Strong et al., 2011). Besides student achievement, some measures also examine teachers' organizational skills, student surveys, attendance, tardiness, and other such noncognitive components of classroom instruction (Cheng & Zamarro, 2016; Harris et al., 2014; Jacob et al., 2016).

For example, in many states, teacher effectiveness is measured by the statewide evaluation system authorized by the state's education departments. Many of these evaluation systems have multiple categories that cover a wide range of topics. For instance, in Oklahoma, teachers are assessed on five domains: classroom management (30%), instructional effectiveness (50%), professional and continuous improvement (10%), interpersonal skills (5%), and leadership (5%) (OSDE, 2021a). Within each of the domains are several dimensions, as follows:

1. *Classroom management:* preparation, discipline, building-wide climate responsibility, lesson plans, assessment practices, and student relations.

2. *Instructional effectiveness:* literacy, current state standards, involves all learners, explains the content, explicit instruction, and directions, models, monitors, adjusts based upon monitoring, establishes closure, and student achievement.
3. *Professional growth and continuous improvement:* professional development, professional accountability.
4. *Interpersonal skills*: effective interpersonal skills.
5. *Leadership:* professional involvement and leadership (OSDE, 2021).

Thus, in Oklahoma, teachers are assessed on a numerical scale from 1 to 5, with 5 being the highest score a teacher might receive on 20 different dimensions.

Other states are similar in their complexity. For instance, New Mexico has four domains with four or five dimensions for a total of 19 dimensions. Instead of numerical scores, teachers are scored by criteria: not demonstrating, developing, applying, and innovating (NMPED, 2021). In other states, however, teacher evaluation includes multiple measures, which may include student surveys and student standardized test scores (e.g., Cheng & Zamarro, 2016; Harris et al., 2014; Harris & Rutledge, 2010; Stronge et al., 2011).

Overall, evaluating teacher effectiveness is a messy business because these tools are often limited in their measurement capabilities and lack coherence (Harris & Rutledge, 2010). Teacher evaluation tools are often influenced more by politics and trends than by research (Harris & Rutledge, 2010; Stonge et al., 2011). Because of this complexity, I rejected using the Oklahoma Teacher and Leader Effectiveness (TLE) tool to measure teacher effectiveness, deciding evidence suggests job satisfaction is also a means to assess teacher effectiveness.

Therefore, I used the FIT-Choice (Factors Influencing Teaching Choice Framework) scale to assess perceived survey respondents' “fit” for teaching and their job satisfaction.

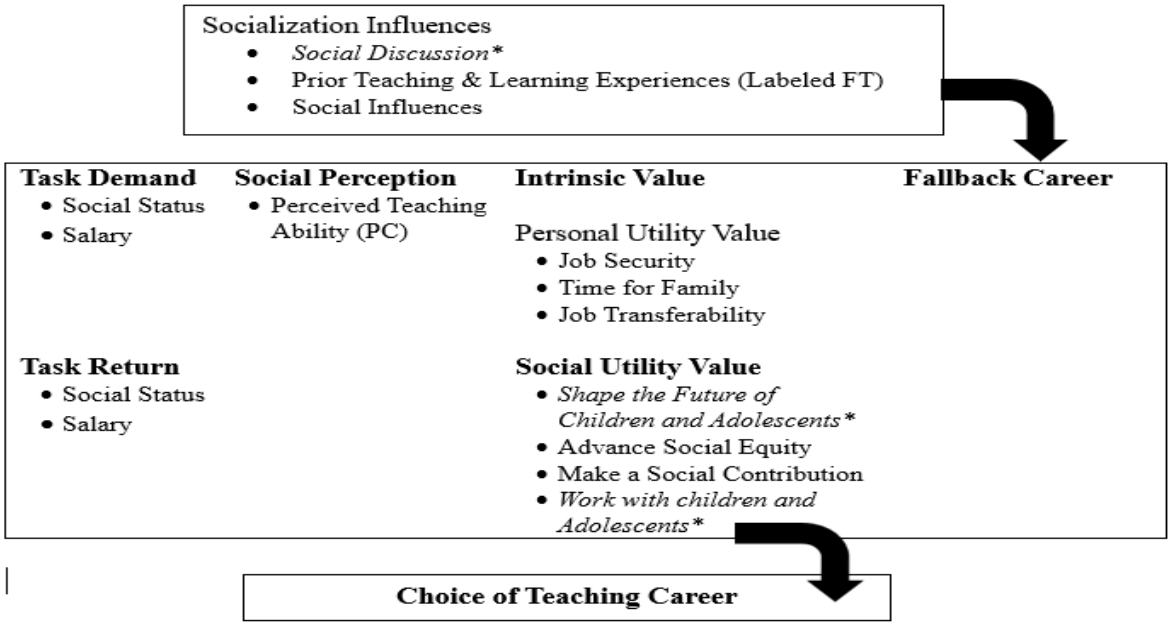
Researchers have widely used the FIT-Choice scale to evaluate prospective teachers' motivations for choosing teaching as a career and their levels of job satisfaction (Richardson & Watt, 2005, 2006, 2016; Watt & Richardson, 2007, 2008, 2012; Watt et al., 2012). The FIT-Choice Project is a large-scale international longitudinal project with multiple cohorts across two countries (Richardson & Watt, 2005, 2006, 2016; Watt & Richardson, 2007, 2008, 2012; Watt et al., 2012). The project's extensive research indicates the validity of this scale in assessing teachers' fit as educators and their job satisfaction (Richardson & Watt, 2005, 2006, 2016; Watt & Richardson, 2007, 2008, 2012; Watt et al., 2012). The scale identifies motivating factors for career choice and has been modified based on research (Richardson & Watt, 2005, 2006, 2016; Watt & Richardson, 2007, 2008, 2012; Watt et al., 2012). It identifies factors and contextual processes that either support or inhibit the retention of teachers (Richardson & Watt, 2005, 2006, 2016; Watt & Richardson, 2007, 2008, 2012; Watt et al., 2012).

Figure 3 illustrates the components of the FIT-Choice Framework. Each FIT-Choice value encompasses either intrinsic or extrinsic motivations. Intrinsic factors are those that fulfill individuals' personal desires, such as enjoyment, while extrinsic ones involve considerations like the desire for a stable salary and financial rewards. It also includes task demands of first-order constructions such as expertise and difficulty, as well as the social status and morale of teachers. Finally, it assesses prospective teachers' decision to pursue teaching with their personal values, interests, and long-term goals. Below is a discussion of each category:

1. Socialization Influences: The impact of external factors, such as others' opinions and expectations, on individuals' career decisions.
2. Self-Perception: Prospective teachers believe that they have the qualities to be an effective teacher.

Figure 3

FIT-Choice Model



*N*ote. This is the visual representation of the Fit-Choice model (Richarson & Watt, 2006)
*Variables not assessed in this study have an asterisk and are in italics.

3. Personal Utility Value: This category encompasses personal needs and values that motivate prospective teachers to pursue the profession, such as job transferability or aligning schedules with those of their children or partners.
4. Social Utility Values: This value includes the prospective teacher's commitment of teacher candidates to social justice, fairness, equity, inclusion, social justice, diversity, and the promotion of equitable opportunities for all students and educators.
5. Personal Utility Value: This category encompasses personal needs and values that motivate prospective teachers to pursue the profession, such as job transferability or aligning schedules with those of their children or partners.

6. Social Utility Values: This value includes the prospective teacher's commitment of teacher candidates to social justice, fairness, equity, inclusion, social justice, diversity, and the promotion of equitable opportunities for all students and educators.
7. Fallback Career: This value implies that the career is seen as a backup plan or safety net in case the individual encounters difficulties or challenges in their primary career path.

With his information in mind, two more hypotheses emerged for investigation in identifying differences between traditionally versus nontraditionally certified teachers,

Hypothesis 3*:* There will be a positive correlation between the knowledge of teaching and job satisfaction (e.g., Carter et al., 1988; Darling-Hammond 2000a, 2000b; Reynolds, 1995). Traditionally trained teachers will be more satisfied with their jobs because they are more prepared for the classroom's challenges.

Hypothesis 4: Self-efficacy, the ability to successfully engage students in learning, create meaningful lessons, and manage a classroom, will affect teacher job satisfaction. (e.g., Carter et al., 1988; Darling-Hammond, 1990, 2000a, 200b).

Self-efficacy, Grit, Personality, and Teacher Job Satisfaction

Building on the work of researchers who studied mental disorders, positive psychologists focused on the science of mental health and well-being (Seligman et al., 2005). These researchers have illuminated the effect positive thinking has on human emotions, the human condition, and our institutions (e.g., Cameron et al., 2003; Easterbrook, 2003; Gardner et al., 2001; Kahneman et al., 1999; Murray, 2003; Vaillant, 2000). Positive psychologists strive to use what they have learned about mental illness to find strategies to help people find lasting happiness (Seligman et al., 2005). Through these efforts, a whole host of other theories about

self-efficacy, grit, and resiliency have emerged, many of them attracting the attention of educational researchers (Seligman & Csikszentmihalyi, 2000; Usher et al., 2019).

Some researchers have noted a dichotomy between what teachers believe constitutes effective teaching and what researchers have observed and studied (Reynolds, 1992). For instance, for years, teachers have shared with researchers that building students' confidence and self-esteem and responding to their emotional needs were essential components of effective classroom instruction. Teachers contended that building students' positive beliefs in their ability to complete the work resulted in increases in their academic performance. However, only in the past thirty years or so, with the onset of positive psychology, have researchers begun to focus their efforts on these elements of classroom instruction (Deci & Ryan, 1985; Gagné & Deci, 2005; Winter & Barenbaum, 1999).

Positive psychology (PP) began to capture educational researchers' interest at the beginning of the 21st century through the work of pioneer researcher Martin Seligman and his colleagues. Conceptually, PP applies to the theoretical branch of the psychological community that repairs "negative" predispositions embedded in traditional psychology so that it has "a full accounting [of] human nature and behavior can emerge" (Sheldon & Ryan, 2010, p. 33).

Before the introduction of PP, negative biases dominated psychology theory. These negative biases, firmly based on Freudian psychology, suggested humans were more prone to behaviors such as selfishness and self-centeredness, corruption, cowardice, narcissism, and other asocial behaviors (Sheldon & Ryan, 2010). Moreover, psychology often analyzes people's social, emotional, and cognitive "breakdown" points, so these negative biases were prevalent in research. The intense focus of the "individualistic perspective" exhibited a narrowmindedness of psychological researchers who seemed not to analyze "the importance of collective aspects of

personality such as groups, social identities, and cultural symbols" (Winter & Barenbaum, 1999, p. 4). PP rebalanced psychological approaches to theory so that researchers and psychologists were more objective in their mindset, examining both human motivation and success as well as failure (Sheldon & Ryan, 2010).

Historically, romantic and humanistic thinkers, writers, and psychologists—such as Rousseau, Keats, Dewey, Piaget, Rogers, Maslow, and May—focused on the positive aspects of human nature. Their approach was undermined by uncompromising grant-funded research that focused its efforts on the negative aspects of human nature, rejecting the idea that quantitative methods could be used to study human nature (Seligman & Csikszentmihalyi, 2000). In other words, some researchers argued that the "psychometric approach to personality psychology runs the danger of becoming" an approach that "deliberately or unwittingly functions mainly to serve the interests of the powerful" (Winter & Barenbaum, 1999, p. 7).

Without delving too deeply into the history of the theoretical battle between researchers who advocated a focus on "individual differences" and those who focused on the "study of individuals" (Winter & Barenbaum, 1999, p. 7), PP may have been the bridge between these two opposing camps (Sheldon & Ryan, 2010). Thus, PP may have been the catalyst to turn the tide so researchers could thoroughly analyze human nature, examining positive aspects of it to understand and illustrate what motivates people to succeed despite incredible odds (Sheldon & King, 2001; Sheldon & Ryan, 2010). Sheldon and Ryan (2010) succinctly explained how PP benefitted psychological research:

> Of course, studying when and how a system breaks down is an important way to understand the underlying functioning of that system. However, understanding how a system adapts and evolves may be just as important. Many times, the latter understanding

> can be increased just by adding another assessment point subsequent to the original breakdown (p. 34).

PP, which is based on qualitative and quantitative data, puts even the most "humanist of ideas to an empirical test" (Sheldon & Ryan, 2010, p. 34).

PP allowed psychological researchers to fully explore all the factors of the human psyche, including those that were successful and those that were failures. PP has provided "an umbrella" for researchers to examine what works— "what goes right, how adaptive systems function, and why the average person does well" (Sheldon & Ryan, 2010, p. 34). Winter and Barenbaum (1999) observed that "research trends always develop in particular social and political contexts" (p. 17). Curiously, PP's increased popularity as a theory in the United States coincided with the terrorist attack on September 11, 2001. Perhaps the context of 9/11 might be the impetus for the theory's popularity. Americans were looking for positivity as they grappled with the notion that, like the rest of the world, we, too, are susceptible to terrorist attacks. PP might have been an avenue for finding meaning in such a horrific event (Winter & Barenbaum, 1999).

Understanding the relationship between PP and various related theories is fundamental to this study's framework. How do self-determination theory (SDT), self-efficacy theory, resiliency, and grit conceptually interrelate? How are these theories intertwined with PP? Which of these three concepts should I examine in my study? After reviewing the literature, I concurred with Sheldon and Ryan (2010), who argued that PP is the theoretical basis of SDT. Moreover, self-efficacy, grit theory, and resiliency theory also have their root in PP. Positive psychology has failed to fully explain how negative psychological, interpersonal, and cultural experiences may lead to individual productivity, positivity, happiness, and success (Lazarus, 2003; Ryff, 2003; Young-Eisendrath, 2003). Consequently, SDT, self-efficacy, grit, mindset, and resiliency

theories have filled the gap to explain this phenomenon (e.g., Deci & Ryan, 1985; Gagné & Deci, 2005; Ryan & Deci, 2011).

Psychologists Deci and Ryan (1985) are often named as the fathers of SDT. This theory looks at the inherently positive human tendency as the essential element ideal for human growth, development, and veracity (Ryan et al., 1996). It outlines three core needs that facilitate this growth: competence, relatedness, and autonomy (Ryan & Deci, 2011, p. 48). Gagné & Deci (2005) argue that the need for competence, autonomy, and relatedness of individual development depends on satisfying these needs in the social environment. Thus, motivation, in this context, is defined as what moves individuals to act (Ryan & Deci, 2011).

SDT theory has been used to analyze individual happiness and unhappiness (Ryan & Deci, 2011). Individual happiness stems from individuals striving to reach their life goals, which are not necessarily related to material possessions. In fact, the "psychology of more"—as defined by "more money, more fame, and more attractiveness"—is not necessarily the key to happiness (Ryan and Deci, 2011, p. 46). Moreover, people may achieve happiness through what Aristotle called the "eudemonic life," defined as *not* a "state of being" but rather "a way of living" (Ryan & Deci, 2011, pp. 44–45). The eudemonic life includes the quest for self-actualization (which includes self-reflection), individual growth, and psychological well-being (Ryan & Deci, 2011). Other researchers have supported this definition of well-being (see, e.g., Gagné & Deci, 2005; Huta & Ryan, 2009; Kashdan et al., 2008; Ryan & Deci, 2011).

One of the most important distinctions of SDT theory is its deep analysis of intrinsic and extrinsic motivation, which researchers have identified as critical factors in individual wellness and happiness (Ryan & Deci, 2011). Gagné and Deci (2005) note that, unlike many other work motivation theories that fail to differentiate between types of motivation, SDT differentiates

between the relative strength of autonomous and controlled motivation. SDT defines *intrinsic motivation* as behavior that stems from internal satisfaction and motivation, whereas *extrinsic motivation* comes from pressure upon the individual that brings about the behavior or behavioral change (Ryan & Deci, 2011).

SDT theory suggests that the best method to motivate people is to allow them to do things they are inherently interested in doing. This results in a host of positive emotional and well-being states, including satisfaction. Intrinsically motivated people are better equipped to identify personal learning goals, grow professionally and personally, and dig deep to find character strength to help them through challenging times. They are more likely to live a lively and contented life (see, e.g., Gagné & Deci, 2005; Huta & Ryan, 2009; Kashdan et al., 2008; Ryan & Deci, 2011).

Four distinct types of extrinsic or external motivation exist (Ryan & Deci, 2011). A critical concept of SDT is that extrinsic motivation may fluctuate depending on whether it is autonomous or controlled and the degree to which it is (Gagné & Deci, 2005). This controlled-to-autonomous continuum depends on the situation and the internalization (Ryan & Deci, 2011).. Extrinsic motivation might be necessary to motivate an individual to pursue an activity that is not internally interesting (Ryan & Deci, 2011). An example of this is individuals who exercise not because they enjoy doing so but because of exercise's health benefits. Gagné and Deci (2005) argued that "the perception of a contingency between the behavior and the desired consequence such as implicit approval or tangible rewards" must be present extrinsically in order to motivate the individual to complete the task (p. 332).

Intrinsic motivation requires that individuals identify the importance of their behavior to reach their self-selected goals and search for well-being (Gagné & Deci, 2005). The more an

individual identifies with the behavior, the more internalized it becomes, even if it is extrinsically regulated. To fully understand this concept, reviewing the continuum of possibilities is essential.

External regulation is considered the least autonomous motivation type because one behaves in a particular manner either to "obtain external rewards or to avoid punishments" (Ryan & Deci, 2011, p. 50). An example of this type is an individual who does not text and drive because of the consequences.

The second type of motivation is called *introjection regulation* because the individual chooses to act in a particular way to avoid feelings of guilt, disapproval, or embarrassment (Ryan & Deci, 2011). Individuals who experience external regulation are motivated by "shoulds" and the opinions of others, such as parents, spouses, supervisors, the clergy, or other individuals important in their lives (Ryan & Deci, 2011, p. 51). An example of this type of regulation is a teen who does not steal, not because he has internalized that it is wrong but because his parents have taught him that he should not steal.

A subtle difference exists between the subsequent two forms of regulation, *identified regulation* and *integrated regulation*. Identified regulation entails personal feelings of ownership and a willingness to follow the regulation (Ryan & Deci, 2011, p. 51). An example of this type of regulation is a statement such as "I watch for biases in my language because it is an important life goal for me to be non-biased." Integrated regulation, in contrast, is a less conscious regulatory act. An example of this is a statement such as "I avoid being biased because it is identified as a life goal for me to be a non-biased, fully conscious person." The individual who has integrated regulation acts in a particular manner without much thought because the action has been fully integrated into their being.

For the past forty years, educational researchers have been studying another theory similar to SDT, the theory of self-efficacy. Teachers' self-efficacy, which has its roots in the PP movement, is a fundamental component of student learning (Bandura, 1977; Hoy, 2000; Hoy & Woolfolk, 1993). Self-efficacy is the confidence teachers have in their ability to promote student learning. Self-efficacy profoundly influences personal outcomes by influencing intrapersonal pursuits such as goals, outcome expectations, and self-reflection (Bandura, 1997). Teachers and students who perceive themselves as capable because they have confidence in their ability to succeed have more self-efficacy than those who lack self-confidence.

An emerging body of research shows that teachers' self-efficacy is associated with student factors like achievement and motivation (Caprara et al., 2006) and teacher factors like job commitment and job satisfaction (e.g., Caprara et al., 2006; Klassen & Chiu, 2010). Job satisfaction is crucial in education because job-related stress negatively affects students' academic achievement (Banerjee, 2016; Kalyva, 2013).

Since the late 1970s, researchers have extensively studied teachers' ability to achieve their desired results in the classroom (Fives & Buehl, 2010; Tschannen-Moran et al., 1998). The Teachers' Sense of Efficacy Scale (TSES) has assessed teachers' efficacy in completing critical tasks associated with classroom instruction (Tschannen-Moran et al., 1998). Student engagement, classroom management, and instructional practices are the three critical instructional tasks the scale assesses to determine teachers' sense of efficacy (Tschannen-Moran et al., 1998). The TSES has been widely used by researchers and teacher educators (Cheung, 2006; Fives & Buel, 2010; Fives et al., 2007).

Some researchers have noted the relationship between teachers' sense of efficacy and their teaching experience (Klassen & Chiu, 2010; Tschannen-Moran et al., 1998); teacher self-

efficacy decreases with experience (Hoy & Woolfolk, 1993; Taylor & Tashakkori, 1995). Other researchers have also noted that preservice teachers have an inflated sense of self-efficacy that decreases with experience (e.g., Brousseau et al., 1988; Carter et al., 1988; Hollingsworth, 1989; Peterson & Comeaux, 1987; Sabers et al., 1991; Weinstein, 1989). Sirait (2016) found that high school teachers' evaluation scores showed a positive and statistically significant impact on student achievement, whereas other researchers have noted that evaluation scores reflect pedagogic competency (Gerritsen et al., 2017). However, other researchers have found no relationship between experience and efficacy (Ghaith & Shaaban, 1999; Guskey, 1987).

Fives and Buehl (2010) conducted a small-scale study examining the factor structure of the long and short forms of the TSES. They compared the responses of preservice teachers to practicing teachers on both forms of the TSES to determine significant differences in their responses based on their experience and the grade level they taught. Examining the three-factor structure of efficacy for classroom management, instructional practices, and student engagement, the researchers discovered that preservice teachers' beliefs about efficacy differed from those of experienced teachers (Fives and Buehl, 2010, p. 132). In particular, veteran teachers have the strongest efficacy beliefs in managing student behavior and the lowest efficacy beliefs in their ability to engage students. The inverse is true for novice teachers, who have the strongest efficacy beliefs in their ability to engage students in learning and the lowest efficacy beliefs in managing student behavior.

Because little research exists on emergency certified teachers' ability, it seems fitting to use questions from the TSES to assess traditionally, alternatively, and emergency certified teachers' beliefs and feelings about efficacy and job satisfaction. There is a need for additional research that overtly examines the relationship between classroom teachers' personality traits

and their effectiveness and satisfaction with their work (Kell, 2019; Robertson-Kraft & Duckworth, 2014).

I assumed traditional teachers would have a stronger sense of self-efficacy because they are better prepared for the challenges of teaching. Therefore, their self-efficacy will provide them with the skills necessary to feel more effective in the classroom and, thus, more satisfied with their job. Alternatively trained teachers engaging in specific programs, such as Teach for America, will also feel more satisfied with their job because they will have the support necessary to fill gaps in their training and knowledge. Alternatively and emergency certified teachers, whose previous job experiences simulate classroom teaching experiences, will also feel more satisfied and will feel more self-efficacious because their on-the-job training and experience will fill missing gaps in their knowledge, experience, and education. Alternatively and emergency certified teachers who have no experience or support to fill this knowledge gap will feel less self-efficacious.

The concept of grit is similar to that of self-efficacy. Research on grit by Angela Duckworth and her colleagues comes from Seligman's work, which identified character strength as a component of a positive mindset (Duckworth, 2016). Duckworth et al. (2007) defined grit as the ability to act single-mindedly, diligently, and dedicatedly to achieve a long-term goal despite obstacles. Thus, individuals with high determination have higher grit and are more equipped to overcome obstacles to their long-term goals. Duckworth noted that although grit is about sustaining a consistent effort toward a goal despite obstacles that might include sustained struggles and disappointments, resiliency is about the ability to bounce back after those struggles (Perkins-Gough, 2013). Duckworth also noted that Dweck's work on growth mindset implies

intelligence is not fixed but is, in fact, something an individual can grow (Perkins-Gough, 2013). This observation has had a profound influence on the theory of grit.

Grit is a deep, long-term commitment to a belief in success, even when faced with failure. Examples of grit are the unsuspected success of individuals in school despite a low reading level. Duckworth et al. (2007) argued that grit can explain why some individuals perform better than their scores on ability tests might predict or why people like Albert Einstein or Oprah Winfrey are successful despite insurmountable odds.

The construct of grit does have its detractors (e.g., Credé et al., 2017). These researchers noted the similarities between grit and other constructs, such as persistence, resiliency, and consistency, which researchers have studied for years (e.g., Credé et al., 2017). Other constructs, such as proactivity (Crant, 1995), persistence (De Fruyt et al., 2000), industriousness (Eisenberger, 1992), the quest for achievement (McClelland, 1985), self-control, and order (Roberts et al., 2005), resemble grit conceptually (Credé et al., 2017). Some researchers have suggested that the "jangle fallacy" (Kelly 1927, p. 4, para. 64) plagues grit's construct. The "jangle fallacy" is a situation in which several words or phrases describe different constructs or phenomena because of their definitions when, in reality, they describe the same concept or phenomenon.

Grit and self-efficacy are often theoretically intertwined concepts that can function independently of each other (Usher et al., 2019). As a trait-level personality construct, Duckworth referred to grit as the passion and perseverance individuals possess to reach their goals (Duckworth, 2016; Duckworth et al., 2007). Self-efficacy differs from grit because it is a domain-specific belief people hold about their ability to perform specific tasks (Usher et al., 2019, p. 4) and, therefore, is essential to individual success (Bandura, 1997; Schunk &

DiBenedetto, 2016; Usher, 2013). Thus, teachers may have the passion and grit to manage students in the classroom effectively, but without confidence in their management skills and self-efficacy to use this skill, they will most likely fail (Nie et al., 2012).

A 2019 study examining the scholastic record of over 2,400 public elementary and middle school students discovered that perseverance (a principal component of grit) did not necessarily predict the students' reading and math scores (Usher et al., 2019). However, self-efficacy was a predictor of these scores (Usher et al., 2019). Teachers gave higher motivational scores to students they described as "gritty" and more "self-efficacious," rating these students as more competent than their peers (Usher et al., 2019, p. 899). From this study, the researchers proposed that increasing students' grit without increasing their self-efficacy and belief in their academic abilities will not ensure their success in school (Usher et al., 2019).

Researchers have noted a relationship between job satisfaction, self-efficacy, and grit (e.g., Adler, 1996; Costa, 1996; Furnham et al., 2005; Harris & Rutledge, 2010; Judge et al., 2001; Kell, 2019; Kennedy, 2012; Petty et al., 1993; Rose et al., 2014; Salgado, 1997; Thorton et al., 2005). The subsequent two hypotheses will examine the intersection between licensure, job satisfaction, self-efficacy, and grit. Studies have also linked the Big Five character traits to self-efficacy and grit (Judge et al., 2002; Judge et al., 2007). Conscientiousness facilitates task engagement and effort, fostering higher self-efficacy beliefs (Brown et al., 2011; Chen et al., 2001). Openness shifts perceptions of demands into challenges to be tackled, broadening task engagement and self-efficacy (Sanchez-Cardona et al., 2012). Agreeableness, in contrast, facilitates entry into new activities, mastery of which can lead to increased self-efficacy (Caprara et al., 2006). Extraversion heightens positive reactions from others, which can increase self-efficacy (Judge & Ilies, 2002). Conversely, neuroticism increases anxiety, which suppresses or

reduces self-efficacy (Steel et al., 2008). Despite these findings, researchers have noted that the influences of the Big Five traits on self-efficacy are inconclusive; the most consistent predictors tend to be conscientiousness and neuroticism (Judge et al., 2007).

The Big Five traits predispose one to behaviors coherent with the trait, which can also increase self-efficacy for the same activities due to repeated practice, i.e., enacted mastery (Stajkovic et al., 2018). Moreover, self-efficacy is not bound by traits (Bandura, 1994). Because self-efficacy depends on experience, it is adaptable and can be enhanced through enacted mastery, vicarious learning, verbal persuasion, and physiological or psychological sensations (Artino, 2012). That is, how students perceive the characteristics of their social environment—the impediments it erects and the opportunities it provides—influences their courses of action beyond dispositions (Stajkovic et al., 2018). Those with low self-efficacy easily convince themselves of the futility of effort when they come up against academic obstacles (Stajkovic et al., 2018). In contrast, those with high self-efficacy figure out ways to surmount the (Stajkovic et al., 2018).

Self-efficacy, resiliency, growth mindset, and grit can be confusing terms. For this study, I will use self-efficacy to examine teachers' beliefs in their capacity to execute actions necessary to control their classrooms and the confidence to reach all students (Bandura, 1977, 1986, 1994). Self-efficacy is a tool that describes the confidence teachers have in their ability to exert control over their own motivation, behavior, and social environment (Bandura, 1977, 1986, 1994). Duckworth et al. (2007, p. 1087) defined grit as perseverance and passion for long-term goals (Duckworth & Quinn, 2009, p. 166). Grit differs from the Big Five personality traits because of its "emphasis on stamina" (Duckworth & Quinn, 2009, p. 166).

In my study, I used the Grit Scale to ask participants to respond to statements such as "I keep trying even after I fail" and "I get things done that need to be done, even when I do not feel like doing them. Grit is a better predictor of achievement than IQ alone (Duckworth & Quinn, 2009). For this study, I used the Short Grit Scale (Duckworth & Quinn, 2009), which researchers have used extensively and has been proven to measure an individual's ability to pursue long-term goals effectively. This discussion leads to three final hypotheses for my investigation:

Hypothesis 5: Traditionally trained teachers will have more self-efficacy in classroom management and will, as a result, feel more satisfied with their job.

Hypothesis 6: There will be a positive correlation between traditionally trained teachers' job satisfaction and their grit scores and their FIT-Choice scores in the categories of Socialization Influences, Self-Perception, and Social Utility Value.

Chapter 4: Method

Restatement of Purpose

This investigation aims to examine similarities and differences among recently certified teachers possessing several types of teaching licenses. The following inquiries drove the research:

R.Q. 1: How do novice traditional, alternative, and emergency certifications teachers compare and contrast in terms of background, personality traits, and job-related factors such as teaching knowledge, grit, self-efficacy, and job satisfaction?

R.Q. 2: Does certification status act as a moderator in the correlation between personality traits, job-related factors, and teacher job satisfaction?

To investigate these questions, the researcher surveyed new teachers in Oklahoma to collect data on their demographic background, personality traits, and job-related characteristics. In addition to demographic details, participants were also surveyed on various aspects such as personality traits, grit, self-efficacy, suitability as a teacher, and job satisfaction.

The conceptual framework for the study illustrates the moderating effect certification status may have on the dependent or outcome variable, job satisfaction, and the other independent variables (teacher background characteristics, personality traits, grit, self-efficacy, teacher fit, and knowledge of teaching).

In this chapter, the methods employed to investigate the connection between job satisfaction and a range of factors will be outlined. Specifically, the researcher will delve into the data collection methods, the variable utilized to gauge the dependent variable—teacher job satisfaction—the demographic information collected from survey participants, and the independent variables, which include grit, self-efficacy, knowledge of teaching, FIT-Choice

variables determining teacher job fit, personality traits, and participants' results of the Cognitive Reflection Test.

The chapter also includes a discussion of the statistical methodologies employed to analyze the data and recognizes the study's limitations, particularly considering that participants were surveyed during the onset of their teaching careers amid the COVID-19 pandemic.

Research Design, Sampling Approach

This research employed a cross-sectional, observational, and correlational survey research design. The researcher developed a customized questionnaire specifically designed for educators in their first three years of teaching in school districts across Oklahoma. The survey contained 113 items and typically took about 20 to 25 minutes to complete. Table 1 describes the number of questions asked for each variable and discusses each one in detail: As an incentive, six randomly selected respondents who completed the survey were rewarded with a $50.00 Amazon gift card.

Following the approval from the Institutional Review Board (IRB), the researcher disseminated a survey to the email addresses of 58,733 certified teachers employed in public schools within the state of Oklahoma. Qualtrics® was used to collect survey responses. The researchers then excluded duplicate and incomplete responses, as well as those from individuals other than teachers, such as counselors, social workers, librarians, and those of teachers with more than three years of classroom experience. The final data set contained 556 responses gathered in the summer of 2022 from teachers who have worked in Oklahoma schools for one to three years. Many of these teachers began their careers in the Fall of 2019 and spent their first two years of teaching during the COVID-19 pandemic. Insights about this unique data set will be explored in the Limitations of the Study found later in Chapter 6.

Revisit the Conceptual Framework for the Study

The survey was structured to elicit fundamental demographic details regarding certification status. Additionally, it included survey inquiries crafted to capture the personality traits and job-related characteristics identified earlier in the study. Appendices 1, 2, and 3 house the consent information, demographic queries, and survey questions, respectively.

The Conceptual Framework for the study was shared in Chapter 3. However, it is helpful to revisit this framework as we move into the discussion of the study's methods. As Figure 2 illustrates, the independent variables (found on the left) affect the dependent variable (teacher job satisfaction). Likewise, teacher job satisfaction might also be affected by the independent variables (teacher background, grit, self-efficacy, etc.). I also hypothesized that certification status, the moderating variable, might also influence the relationship of particular independent variables to job satisfaction. Figure 3 illustrates this hypothesized relationship.

The researcher wants to understand the effect preparation for becoming a teacher (certification pathway) has on other teacher characteristics. With the increasing number of emergency and alternatively certified teachers entering classrooms in Oklahoma and throughout the country, understanding the interaction among these variables might assist district and school leaders in planning to best meet the needs of this emerging group of educators.

Analytical Approach

Two different statistical software programs were used to analyze the research data. As aforementioned, 58,733 emails were sent to Oklahoma teachers in June 2022. The initial survey responses were gathered in Qualtrics®. The raw data from Qualtrics® was then imported into SPSS (Statistical Package for Social Science) version for analysis. The researcher and faculty advisor worked collaboratively to ensure that the final data set was accurate, free of duplication,

coded correctly, and all data entry errors were addressed. SPSS and STATA 15SE were used to analyze the research questions. Table 1 summarizes the analytical approaches and data sources used for each question.

Table 1

Overview of Research Questions

	Research Question	Data Sources/Approach	Analysis and Software
Research Question 1	How do novice teachers with traditional, alternative, and emergency certifications compare and contrast in terms of background, personality traits, and job-related factors such as teaching knowledge, grit, self-efficacy, and job satisfaction?	SPSS Quantitative Data of outcomes and certification status. Descriptive Statistics	Independent samples t-tests/ANOVA in SPSS
Research Question 2	Does certification status act as a moderator in the correlation between personality traits, job-related factors, and teacher job satisfaction?	SPSS Quantitative Data of job satisfaction as related to teacher characteristics as moderated by certification status.	STATA was used to conduct statistical analyses, including regression analysis and moderation analysis.

To answer parts of both research questions, SPSS software was used to produce descriptive statistics about the demographic questions (gender, race, questions about family and work outside education, family status, etc.). The STATA program was used to perform multiple regression analyses of the work-related variables (personality, grit, self-efficacy, knowledge of teaching, job satisfaction, and FIT).

To answer the questions about job satisfaction, personality, grit, self-efficacy, knowledge of teaching, and teacher fit, STATA was employed to conduct a regression analysis, producing output that included coefficients and standard errors for the study's various variables and the moderation analysis. The analysis primarily focused on the dependent variable, job satisfaction. Conversely, the independent variables included demographic details (like gender and race), career-related aspects (such as immediate post-graduation employment, family status),

personality traits (such as Big Five Personality), self-efficacy, grit, teaching knowledge, teacher suitability, and certification pathway (including traditionally certified, alternatively certified, and emergency certified teachers). As previously mentioned, job satisfaction served as the outcome variable, with the remaining factors acting as independent and/or moderating variables.

Measures and Instrumentation

In this study, the researcher strove to understand how traditionally, alternatively, and emergency certified novice teachers differed in background, personality, and job-related characteristics such as teaching knowledge, grit, self-efficacy, and job satisfaction. Certification was the moderating variable used in the study, and the dependent variable was job satisfaction.

Through the survey, the researcher gathered the following demographic data from participants: race and ethnicity; gender; marital status; if the respondents had children or is a caregiver; education (highest degree earned); undergraduate major (e.g., liberal arts, science, fine arts) and minor; job experience outside education; grade level (elementary, middle, or high school) and content taught The researcher also used the measures listed below to understand the factors that influenced the participants to become teachers, as well as their beliefs about teaching: Ten-Item Personality Inventory (TIPI) (Gosling, Rentfrow. & Swann, 2003); Grit Scale (short form) (Duckworth & Seligman, 2007); Teachers' Sense of Efficacy Scale (TSES short form) (Tschannen-Moran & Hoy, 2001); Teacher
Self-efficacy Scale (Bandura, 1977); FIT-Choice Scale (Richardson & Watt, 2006) which measured factors that influenced the participants to become teachers, participants job satisfaction, and participants knowledge of teaching; and Cognitive Reflection Test (Frederick, 2005). Table 2 provides additional details on the study measures., including the construct, variables, instruments, and instrument characteristics.

Below is a brief description of the variables used. Table 1 fully describes each variable.

Job satisfaction. The researcher used 15 questions from the FIT-Choice survey (Richardson & Watt, 2006) to assess participants' job satisfaction. Questions included, "I find satisfaction in my work as a teacher." A 1-9 Likert scale will be used, with 1 being low ability or satisfaction and 9 being high satisfaction. This measure is in the public domain, and thus, no permission to use it was needed.

Personality Characteristics. The researcher used the Ten Item Personality Measure (TIPI) (Gosling et al., 2003) to capture teachers' personality characteristics. Initially, the researcher believed that this open-access instrument met the needs of this research project (Gosling et al., 2003). This short 10-question survey seemed preferable to instruments with more questions and uses a 1 to 7 Likert scale, with 1 being "disagree strongly" and 7 being "agree strongly." The TIPI Big 5 Personality instrument does not require permission to use (Gosling et al., 2003). In the Results section of the paper, limitations to the TIPI Short form will be discussed.

Grit. The researchers used the 8-question (short) GRIT Survey (Duckworth & Seligman, 2007) to understand participants' persistence toward success and failure (e.g., "I persist even in the face of failure" or "I continue working towards a goal even when lacking motivation"). The aim is to assess each individual's ability to persevere in the pursuit of long-term goals (Duckworth & Seligman, 2007). The utilized 1 to 5 Likert scale is unidimensional, ensuring item responses fall within an "acceptable range of internal consistency." It is noteworthy that this survey is available in the public domain and is available for anyone to use in research.

Self-efficacy. In this study, the researcher asked participants questions from both Bandura's "Teacher Self-efficacy Scale" (1977) and Tschannen-Moran's "Teachers' Sense of

Efficacy Scale" (TSES short form) (Tschannen-Moran & Hoy, 2001) scales. Bandura's scale focuses explicitly on teachers' self-efficacy beliefs, which refer to their beliefs in their own capabilities to organize and execute actions necessary to achieve desired instructional outcomes. This scale is grounded in social cognitive theory, emphasizing the role of self-efficacy beliefs in influencing motivation, behavior, and, ultimately, performance. It covers a broad range of teaching tasks and situations, assessing teachers' confidence in their ability to impact student learning. Bandura's scale is part of the public domain and does not require permission to use it.

Tschannen-Moran's Teachers' TSES short form (Tschannen-Moran & Hoy, 2001), which was inspired by Bandura's concept of self-efficacy, is a more focused and specific measurement tool. It assesses teachers' efficacy in three specific domains: efficacy in student engagement, efficacy in instructional strategies, and efficacy in classroom management. The scale emphasizes teachers' beliefs in their ability to influence student engagement and behavior. Megan Tschannen-Moran has granted the researcher permission to use this scale. Bandura's scale is available in the public domain.

FIT-Choice. Richardson and Watt's 'FIT-Choice' endeavor (2006) represents an extensive longitudinal research program dedicated to exploring the motivations behind individuals choosing teaching careers, assessing teachers' self-efficacy, and examining the initial experiences of those embarking on a career in education. Richardson and Watt have devised a questionnaire that explains individuals' motivations for opting for teaching as a profession.

Their research specifically addresses the challenges of recruiting and retaining educators in the current climate of teacher shortages. Their study follows individuals who enter the teaching profession, tracing shifts in perceived competencies and professional commitment from

the completion of their degrees to early professional experiences. Furthermore, it identifies factors and contextual processes that either support or hinder retention.

In this study, three sections of the FIT-Choice Assessment were employed. The initial section evaluates the reasons behind participants choosing to become teachers. The second section gauges their job satisfaction, while the third section assesses their confidence in their teaching abilities. To shorten the survey, three components of the FIT-Choice assessment were omitted: Social Discussion, which falls under Socialization Influences, and Shapes the Future of and Work with Children and Adolescents, both of which fall under Social Utility Value.

Cognitive Reflection Test. The Cognitive Reflection Test (CRT) (Frederick, 2005) is a psychological instrument designed to assess an individual's ability to resist intuitive but incorrect responses and instead engage in reflective and analytical thinking. Psychologist Shane Frederick developed the tool in 2005 as a measure of cognitive reflection, which involves the conscious consideration of one's initial thoughts and the ability to override impulsive responses.

The CRT typically consists of a set of short and deceptively simple logical problems. These problems are crafted to provoke an initial, intuitive response that may be incorrect if not thoroughly examined. The test aims to evaluate the individual's capacity for metacognition – thinking about one's thinking processes. The CRT, which is utilized in various fields, including psychology, economics, and behavioral sciences, to explore the relationship between cognitive reflection and decision-making, provides insights into an individual's ability to think critically and avoid common errors in reasoning and has been found to be positively correlated with intelligence (IQ). The test has been widely used in research settings to investigate cognitive processes and decision-making strategies. The decision to use the CRT assessment was made to investigate if there were commonalities among those on similar certification pathways.

Table 2

Description of the Measures Used in the Study

Construct	Study Variable	Instruments	Instruments Characteristics
Demographic Information (14 questions)	Understanding the demographic information of the respondents and analyzing this information to inform the researcher	Questions that gather information about race, gender, marital status, if they respond has children or is a caregiver, education (highest degree earned), undergraduate major (e.g., liberal arts, science, fine arts) and minor, job experience outside education, if the individual started working as a teacher immediately after graduating from college, number of years worked outside education, grade level (elementary, middle, or high school) taught, and subjects and content taught	Fourteen demographic questions were asked, and data was collected and evaluated.
TIPI (10 questions)	Ten-Item Personality Inventory is used to measure the Big 5 Personality Characteristics. (Gosling, Rentfrow, & Swann, 2003).	Participants' personality traits are assessed to see if these traits have an influence on job satisfaction and if there are differences in job satisfaction based on personality and teacher certification.	Ten questions are used to measure personality characteristics on a 1 to 7 Likert scale, with 1 being disagree strongly and 7 being agree strongly.
GRIT (8 questions)	Duckworth & Seligman's (2007) GRIT scale to determine whether individuals pursue long-term goals.	In this study, grit is used to measure a combination of passion and perseverance towards long-term goals.	Eight questions, each rated on a 5-point Likert scale where 1 corresponds to "very much like me," and 5 corresponds to "not like me at all."
Teacher Self-efficacy (12 questions)	TSES short form) will be used to measure teacher effectiveness (Tschannen-Moran & Hoy, 2001).	TSES asks teachers questions about their ability to meet student's needs and their confidence in creating meaningful lessons for students (Tschannen-Moran & Hoy, 2001). The TSES short form will serve two purposes. First, it will measure teachers' self-efficacy, and second, it will be used to measure their understanding of the fundamentals of teaching (Tschannen-Moran & Hoy, 2001).	These 12 questions use a 1 to 9 Likert scale to ask teachers about self-efficacy in the classroom. Teachers chose between 1, which is not at all, and 9, which is a great deal.
Teacher Self-efficacy (12 questions)	Bandura's "Teacher Self-efficacy Scale" (1977) was used to study teacher self-efficacy further.	These questions measure participants' ability to manage their duties as classroom teachers, differentiate instruction to meet the needs of all	12 questions in this survey; respondents use a Likert scale ranging from 1 to 9. A rating of 1 indicates

		students, plan meaningful lessons, and manage student behavior.	"not at all," while a rating of 9 signifies "a great deal."
FIT-Choice Section 1 Why Teaching? (29 questions)	Section 2 of the FIT-Choice questionnaire assesses why people decide to become teachers. (Richardson & Watt, 2006).	Participants responded to inquiries delving into the motivations behind their choice to pursue a teaching career. This section is subdivided into nine parts, encompassing participants' identification with qualities associated with effective teaching, their desire to promote social equity for students, teaching as a fallback career, the perception of job security, the opportunity for job transferability, the aspiration to make a social contribution to society, being inspired by a former teacher, encouragement from family and friends to enter the teaching profession, and the perceived ability of teaching to allow time with their family.	Twenty-nine questions are used, from 1 (not at all important in your decision) to 7 (extremely important in your decision) Likert scale.
FIT-Choice Section 2 Job Satisfaction (15 questions)	Section 2 of the FIT-Choice questionnaire assesses an individual's job satisfaction. (Richardson & Watt, 2006).	Participants were asked, "I find satisfaction in my work as a teacher." This investigation assessed participants' overall satisfaction with becoming a teacher.	This 15-question survey with a Likert scale of 1 to 4 is used to measure an individual's job satisfaction. 1 stands for strongly agree, 2 stands for somewhat agree, 3 stands for somewhat agree, and 4 stands for strongly agree.
FIT-Choice Section 3 Knowledge of Teaching (10questions)	Section 3 of the FIT-Choice questionnaire assesses an individual's knowledge of teaching (Richardson & Watt, 2006).	Participants were asked questions about their knowledge of teaching. They were asked questions about lesson planning, having a good relationship with their peers, managing students, and communicating with parents.	This 10-question survey, using a Likert scale of 1 to 4, is used to measure an individual's knowledge. 1 stands for not confident, 2 stands for somewhat confident, 3 stands for confident, and 4 stands for highly confident.
CRT (3questions)	The Cognitive Reflection Test is a psychological instrument designed to assess an individual's ability to resist intuitive but incorrect responses and instead engage in reflective and analytical thinking. (Frederick, 2005)	Participants were asked three questions that utilize various fields, including psychology, economics, and behavioral sciences, to explore the relationship between cognitive reflection and decision-making. It provides insights into an individual's ability to think critically and avoid common errors in reasoning. The test has been widely used in research settings to investigate cognitive processes and decision-making strategies.	Three questions are asked, and the individuals are asked to write the correct answer. An example of a question is, "In a lake, there is a patch of lily pads. Every day, the patch doubles in size. If it takes 48 days for the patch to cover the entire lake, how long would it take for the patch to cover half of the lake?"

Note. This table describes each measure used in this study.

Study Participants

Of those whose data was used in the research analysis, 107 participants, or 19.2%, identified as male, 441, or 79.3%, identified as female, and 8, or 1.4%, did not identify as male or female. The percentage of female teachers in this study aligns with the overall percentage of female teachers in Oklahoma, according to a 2019 Oklahoma Watch study, which found that 8 of 10 teachers in Oklahoma are female (Palmer, 2018). Once the survey was collected, the overall analytic approach used to analyze the respondents' responses is described in Table 4.

The majority of participants identified as White, with Native American being a distant second. The racial composition of the participants is found in Table 3. Using U.S. Census Data, there is slightly more diversity in the teacher workforce than exists in the state, with nearly three times more Latinx teachers in classrooms than the percent of Latinx in the general population who live in the state, and two times more Asian and Biracial teachers than their respective percentages of state residents (NCES, 2020-2021; NCES, May 2023).

Table 3

Demographics of Study Participants

Racial/Ethnic Groups	**Frequency**	**Valid Percent**	**NCES Oklahoma Census Racial Data**	**Oklahoma Census Racial Data**
No Response	5	0.5		
Native American	63	11.3	4.0%	9.5%
Asian	9	1.6	Unreported	2.6%
Latinx or Hispanic	31	5.6	3.7%	12.1%
Black or African American	27	4.9	0.8%	7.9%
White	405	72.8	84%	73.0%
Biracial	11	2.0	5.9	6.7%
Other	7	1.3	Unreported	Unreported
Total	556	100.0		

Note. This table represents the demographics of teachers who work in Oklahoma. Data for this table comes from *NCES, 2020-2021 and **NCES, May 2023 (U.S. Census, July 1, 2023)

One hundred percent of the 556 teachers whose surveys were analyzed in this study identified themselves as teachers within the first three years of their careers. Two hundred twenty-three (223), or 40.1% of the participants, identified themselves as traditionally certified teachers; 197, or 35.4%, indicated that they were alternatively certified; and 135 participants, or 24.1%, identified themselves as emergency certified teachers. Table 4 reports descriptive data for all other categorical variables.

This demographic data aligns with recent dependence on emergency and alternatively certified teachers filling teacher vacancies. As previously cited, in 2012, only 32 emergency certificates were issued in Oklahoma OSDE (2018, p. 57), whereas over 4,676 emergency certificates were issued in 2024 to under-qualified teaching candidates (Ferguson, 2023; Goins, January 2024; Oklahoma State Board of Education Meeting, 2023, p. 7). With nearly 60% of this study's participants holding an emergency or alternative license, this demographic data reflects the reality of school districts struggling to hire traditionally certified teachers and resorting to using emergency certified teachers to fill vacancies.

Participants in this survey had a wide variety of college majors and minors. Of those surveyed, 40.26% of the respondents majored or minored in a core content (English, History, Social Science, Science, and Math), while 2.92% majored in World Languages, a college readiness requirement for many universities. Additionally, 42.21% of those surveyed majored and minored in other subjects. Of the other content majors studied, more participants (47.2%) studied early childhood education than any other. The next highest major was 8.7% of the participants who studied journalism, advertising, and mass communication. Future research

might benefit from delving deeper into the diverse educational training of traditionally certified teachers to understand better their educational journey and its impact on their job satisfaction.

Table 4

Descriptive Statistics of the Categorical Variables

Category	SPSS Valid Percentage
Gender	
Female	79.3%
Male	19.2%
Non-Binary or Transgender	1.4%
Race and Ethnicity	
Native American	6.5%
Asian	1.3%
Latinx or Hispanic	4.9%
Black or African American	5.4%
White	77.0%
Biracial or Multiracial	3.1%
Other	1.4%
Degree	
Bachelor's Degree	73.9%
Master's Degree	20.7%
Post-Master's Degree	5.4%
Certification Pathway	
Traditional	40.3%
Alternative	35.6%
Emergency	24.2%
Total Nontraditional Pathway	59.8%
Grade Participant taught	
Elementary School	36.2
Middle School	23.4
High School	40.5
Percent of respondents who have children or are caregivers	
Yes, the participant has children or is a caregiver	56.2%
No, participant has no children or is not a caregiver	43.8%
Did you work outside education before teaching?	
Yes, the respondent worked outside education	74.4%
No, the respondent did not work outside education	25.4%
	0.0%
Did you become a teacher immediately after graduation?	
Yes, the respondent worked immediately as a teacher	58.4%
No, the respondent did not work immediately as a teacher	41.6%
Number of Years working outside education	
0 to 3 years working outside of education	22.2%

4 to 10 years working outside education	30.2%
11 to 19 years working outside of education	26.1%
Over 20 years working outside education	21.5%

Note. This table has the percentages for categorical variables measured in this study. (n=556)

Furthermore, 58.3% of those surveyed did not become teachers immediately after graduating from college, and 73.7% of those surveyed worked outside of education before becoming a teacher. Additionally, 410 of the 556 responded to the question, "How many years did you work outside of education." Among those who answered the question, 15.8% reported having been employed for more than 20 years in non-educational roles before transitioning to teaching. Additionally, 19.2% stated they had a work history of 11-19 years outside of education, while 22.3% mentioned having worked 4-10 years in non-educational fields before becoming teachers. Lastly, 16.4% indicated they had worked 0-3 years prior to entering the field of education. This information is interesting, given the fact that over three-quarters of those surveyed worked for 11 or more years outside of teaching.

Participants who worked first outside education were invited to specify positions they held prior to becoming a teacher. Survey results indicated they had diverse work experiences outside of education. Among the responses, 15.11% reported being employed in sectors such as business, banking, insurance, management, and public relations. The second-largest cohort, making up 8.60%, consisted of individuals working in public, private, and religious childcare or adult care, along with those in the Tech and Science Industry. Moreover, 7.65% held positions in government or military service, and an equal percentage was involved in the hospitality industry. Additionally, 6.88% actively participated in roles related to mental health and social services. Novice teachers also reported previous roles in fields such as manufacturing, health care, emergency services, sales, the clergy, criminal justice, custodial and landscaping, law enforcement, retail, childcare, university education, and other similar positions.

Out of the 556 respondents, 36.2% (201) identified as elementary school teachers, while 63.9% (355) identified themselves as secondary school teachers. Within this group, 23.4% identified as middle school instructors, and 40.5% identified as high school instructors. Regarding the content taught by participants, a substantial majority (70.7%) indicated that they teach core subjects like math, science, social studies, and English. Notably, 35.2% specifically mentioned teaching social studies. The remaining participants taught various subjects, with the following percentages: world language (3.0%), fine arts (12.0%), Career Tech (7.4%), PE/Health (2.8%), and Athletics (4.1%). An intriguing direction for future research could involve examining whether these percentage distributions correspond with the representation of new teachers entering these specific content areas.

One intriguing discovery in the study is the relatively low percentage of teachers who provided correct responses to the three Cognitive Reflection Test (CRT) questions. Specifically, only 71 out of 557 respondents, constituting 12.8%, accurately answered all three questions. Surprisingly, 297 participants, or 53.4%, either provided no correct answers or chose not to respond to the questions. This finding raises curiosity as individuals could potentially search for answers using search engines if they encountered difficulty understanding the questions. Interestingly, there were no significant findings associated with whether participants correctly or incorrectly answered the questions. Furthermore, a negative correlation with job satisfaction was observed for the correct response to the CRT questions. There was a -0.036 (0.041) for emergency certified teachers and -0.012 (0.052) for traditionally trained teachers. These correlations were not statistically significant. This finding may suggest that respondents perceived these questions as irrelevant to their role as teachers, leading to a lack of interest in investing effort to answer them accurately.

When asked about working outside of education, 73.7% reported having some experience in other fields before becoming teachers. Specifically, 58.3% had four or more years of such experience, and 15.8% had over 20 years. 16.4% said that they had zero to three years' experience working outside education, and 26.3% did not respond to the question or did not have any experience working outside education. It would be interesting to examine trend data over time to determine if the 15.8% transitioning to education after 20 years in other fields aligns with pre-COVID statistics or represents a new trend in education.

A total of 552 individuals responded to the question regarding whether they had a family or served as a caregiver for a family member. Of those who replied, 43.5% indicated that they had no family responsibilities, while 55.8% responded that they had a family or were a caregiver. This association remains stable across diverse demographics, spanning race, education, certification pathway, and variables such as grit, self-efficacy, and knowledge of teaching.

Table 5

Descriptive Statistics of Continuous Variables

Category	Valid Percent	Mean	Standard Deviation	Valid Responses
Job Satisfaction		3.0212	0.52191	553
Knowledge of Teaching		2.9658	.52706	556
Big 5: Extraversion		4.4145	1.65829	556
Big 5: Agreeableness		5.5072	1.07968	556
Big Five: Conscientiousness		4.9155	1.24952	556
Big Five: Emotional Stability		4.9155	1.24952	556
Big Five: Openness		5.5773	1.03773	556
Grit		3.7039	.56399	556
Self-efficacy: Student Engagement		6.7914	1.05292	556
Self-efficacy: Instructional Strategies		7.1123	1.03868	556
Self-efficacy: Classroom Management		7.1475	1.04806	556
FIT-Choice: Ability		11.05	2.514	556
FIT-Choice: Social Equity		10.33	3.214	556
FIT-Choice: Fallback Career		5.63	3.427	556

FIT-Choice: Job Security	13.77	4.660	556
FIT-Choice: Job Transferability	10.28	4,680	556
FIT-Choice: Make a Social Contribution	11.92	2.446	556
FIT-Choice: Prior Teaching	11.07	3.073	556
FIT-Choice Social Influences	9.79	5.667	556
FIT-Choice * Time with Family	17.72	7.495	556
Cognitive Reflection Test (CRT)	0.9	1.105	556

Notably, participants with family obligations consistently exhibited elevated levels of job satisfaction, and this association reached a statistically significant level ($p < 0.01$) across all categories. These coefficients, along with their significant levels, offer insights into the impact of having a family or being a caregiver on the considered outcome or variable, with the magnitude of the coefficients indicating the strength of the effect. A more in-depth exploration and discussion of this observation will be undertaken in Chapter 6.

Chapter 5: Results

This study explored the relationship between job satisfaction, personality, grit, self-efficacy, teacher fit, knowledge of teaching, and cognitive ability among traditionally trained and alternatively and emergency certified teachers. Two research questions steered this study:

R.Q. 1: How do novice teachers with traditional, alternative, and emergency certifications compare and contrast in terms of background, personality traits, and job-related factors such as teaching knowledge, grit, self-efficacy, and job satisfaction?

R.Q. 2: Does certification status act as a moderator in the correlation between personality traits, job-related factors, and teacher job satisfaction

The two research questions and the review of the literature generated the study's hypotheses. In this chapter, the six hypotheses listed below will be used to organize the discussion of the independent variables.

Hypothesis 1: Traditionally, alternatively, and emergency certified teachers will differ significantly in specific personality characteristics. Specifically, traditionally trained teachers will demonstrate more conscientiousness than emergency certified teachers. Alternatively and emergency certified teachers may have higher scores in openness than traditionally trained teachers.

Hypothesis 2: Teachers who score high in conscientiousness, emotional stability, and openness will have higher job satisfaction (e.g., Furnham et al., 2005; Furnham et al., 2008; Straw & Ross, 1985). Neither extraversion nor agreeableness will be associated with job satisfaction.

Hypothesis 3: There will be a positive correlation between the knowledge of teaching and job satisfaction (e.g., Carter et al., 1988; Darling-Hammond 2000a, 2000b; Reynolds,

1995). Traditionally trained teachers will be more satisfied with their jobs because they are more prepared for the classroom's challenges.

Hypothesis 4: Self-efficacy, the ability to successfully engage students in learning, create meaningful lessons, and manage a classroom, will affect teacher job satisfaction. (e.g., Carter et al., 1988; Darling-Hammond, 1990, 2000a, 200b).

Hypothesis 5: Traditionally trained teachers will have more self-efficacy in classroom management and will, as a result, feel more satisfied with their job.

Hypothesis 6: There will be a positive correlation between traditionally trained teachers' job satisfaction and their grit scores and their FIT-Choice scores in the categories of Socialization Influences, Self-Perception, and Social Utility.

In the following section, the answers to the study research questions and conclusions regarding the study hypotheses will be reported.

Differences in Background, Personality, and Job-Related Characteristics by Certification

The first research question inquired about the differences between traditional, alternative, and emergency-certified teachers in terms of background, personality traits, and job-related factors such as teaching knowledge, grit, self-efficacy, and job satisfaction. Tables 6 through 8 present the findings from this analysis.

An examination of Table 6 demonstrates that, in terms of personality characteristics, emergency certified teachers exhibit higher emotional stability and agreeableness traits than traditionally certified teachers. However, emergency certified teachers showed no difference from traditionally certified teachers in grit and lower knowledge of teaching than traditionally certified teachers. Alternatively certified teachers had significantly higher grit but lower knowledge of teaching than traditionally certified teachers.

Table 6

One-Way ANOVA of Personality, Grit, and Knowledge of Teaching by Certification Type

Certification Type	Extravert	Agree-able	Cons.	Emot. Stable	Open-ness	Grit	Know. Teach
Traditional	4.316**	5.350**	5.861**	4.637**	5.446**	3.631**	3.034**
	(0.110)	(0.072)	(0.069)	(0.082)	(0.069)	(0.038)	(0.035)
Alternative	0.260	0.201	0.078	0.439**	0.303**	0.141*	-0.102*
	(0.161)	(0.105)	(0.100)	(0.120)	(0.101)	(0.055)	(0.051)
Emergency	0.139	0.348**	0.076	0.512**	0.102	0.095	-0.130*
	(0.179)	(0.117)	(0.112)	(0.135)	(0.113)	(0.061)	(0.057)

Table 7 displays the results of the one-way ANOVA analysis of self-efficacy and CRT results by certification type. These results show no differences in self-efficacy, student engagement, instructional strategies, or classroom management by certification type. However, CRT results are highest for alternatively certified teachers, followed by traditionally certified teachers. Emergency certified teachers were no different in CRT performance as compared to traditionally certified teachers.

Table 7

One-Way ANOVA of Self-Efficacy and Cognitive Reflection Test by Certification Type

Certification Type	SE Stud Engage	SE Inst Strat	SE Class Mgmt	CRT Score
Traditional	6.782**	7.154**	7.203**	0.825**
	(0.071)	(0.070)	(0.070)	(0.074)
Alternative	-0.058	-0.011	-0.131	0.231*
	(0.103)	(0.102)	(0.103)	(0.108)
Emergency	0.125	-0.151	-0.041	0.003
	(0.116)	(0.114)	(0.115)	(0.120)

Finally, Table 8 displays the results of the analysis of the FIT-Choice scale by certification type. Beginning with FIT Ability, traditionally certified teachers are highest, and both alternative and emergency certified teachers are significantly lower. The same pattern is

true for prior teaching and job transfer. Conversely, emergency and alternatively certified teachers scored higher on fallback career, with emergency certified teachers reporting the highest levels.

Table 8

One-Way ANOVA of FIT-Choice Scale by Certification Type

	FIT-Choice Scale								
Certification	Ability	Social Equity	Fallback Career	Job Security	Job Transfer	Social Cont.	Prior Teaching	Social Influences	Family Time
Traditional	11.538**	10.475**	4.574**	13.857**	10.901**	12.036**	11.641**	9.489**	17.063**
	(0.166)	(0.216)	(0.222)	(0.313)	(0.312)	(0.164)	(0.204)	(0.379)	(0.501)
Alternative	-0.980**	-0.267	1.604**	-0.379	-0.993*	-0.320	-0.824**	0.247	0.937
	(0.243)	(0.315)	(0.323)	(0.456)	(0.456)	(0.239)	(0.298)	(0.554)	(0.731)
Emergency	-0.628*	-0.244	1.956**	0.151	-1.133*	-0.028	-1.149**	0.884	1.392
	(0.271)	(0.352)	(0.362)	(0.510)	(0.509)	(0.268)	(0.333)	(0.619)	(0.817)

Standard errors in parentheses
** p<0.01, * p<0.05

Research Question 2: Knowledge of Teaching

In Hypothesis 3, the researcher argues that there will be a difference in the relationship between job satisfaction and certification type (e.g., Carter et al., 1988; Darling-Hammond 2000a, 2000b; Reynolds, 1995). It also proposes that traditionally trained teachers will be more satisfied with their jobs because they are more prepared for the classroom's challenges. While this position seems aligned with conventional wisdom, the research findings do affirm this hypothesis. This finding will be discussed more thoroughly in Chapter 6. Below is a description of the findings.

For all three certification paths, there is a difference in the relationship between knowledge of teaching and job satisfaction. Table 9 contains the results of this analysis. Emergency certified teachers demonstrate the most significant difference between job satisfaction and knowledge of teaching. First, after controlling for all other factors, there are no significant differences in job

satisfaction by certification type. One note, however, is that the moderation analysis shows that the relationship between knowledge of teaching and job satisfaction is significantly stronger for emergency certified teachers ($p < .01$). Thus, for emergency certified teachers, the more confident they are in their understanding of effective teaching techniques, the more content they are in their job. This is true for alternatively certified teachers as well in comparison to traditionally certified teachers ($p < .05$).

Table 9

Moderation of Knowledge of Teaching

Dependent Variable:	**Job Satisfaction**
Independent Variable:	**Knowledge of Teaching**
Constant	2.160**
	(0.251)
Female	-0.041
	(0.050)
Master's Degree or Higher	-0.075
	(0.048)
Native American	0.026
	(0.080)
Asian	0.025
	(0.192)
Latinx or Hispanic	-0.155
	(0.093)
Black or African American	-0.171
	(0.098)
Biracial or Multiracial	-0.056
	(0.068)
Has a family or is a caregiver	0.099*
	(0.044)
Work immediately out of college as a teacher	0.099*
	(0.044)
Worked outside of education before becoming a teacher	-0.075
	(0.058)
Traditional Certification	-0.372
	(0.308)
Alternative Certification	-0.711*
	(0.304)
Emergency Certified * Knowledge of Teaching	0.327**

	(0.082)
Traditionally Certified * Knowledge of Teaching	0.092
	(0.103)
Alternatively Certified* Knowledge of Teaching	0.206*
	(0.103)
R-squared	0.239

Note: Using STATA, this table presents the survey results comparing the independent variable, knowledge of teaching, with the dependent variable, job satisfaction. The standard error is shown in parentheses. **p<0.01, * p<0.05.

Job Satisfaction

Embedded in Hypothesis 3 is the argument that traditionally trained teachers will be more satisfied with their jobs because they are more prepared for the challenges of teaching students. (Darling-Hammond, 2018; Feiman-Nemser & Parker, 1990; Gomez, 1988; Grossman, 1991; Hashweh, 1987; Reynolds, 1995; Reynolds et al., 1988; Shulman, 1987; Swanson et al., 1990; Wilson et al., 2002; Xu et al., 2015). As discussed earlier, traditionally trained teachers possess foundational knowledge in educational pedagogy, lesson planning, student engagement strategies, classroom management systems, and other educational techniques typically covered in university and college curricula (Darling-Hammond, 2018; Xu et al., 2015). Alternatively and emergency trained teachers often do not have these skills because they bypass traditional educational pathways (Darling-Hammond, 2018; Xu et al., 2015).

While this argument seems instinctively true since traditionally trained teachers have more education and training that would better prepare them to meet the divergent needs of their students, this hypothesis was not validated. In fact, traditionally trained teachers had a coefficient of -0.372 and a standard error of 0.308. This negative coefficient suggests that traditionally certified teachers, on average, have lower levels of job satisfaction compared to their counterparts with emergency certification. However, this distinction lacks statistical significance, as the coefficient does not deviate significantly from zero ($p > 0.05$). Alternatively certified teachers, however, also had lower job satisfaction than both emergency and traditionally trained

teachers. Alternatively certified teachers were - 0.711 (0.034) units less satisfied with their positions than emergency and traditionally trained teachers ($p < 0.05$). This finding is intriguing because alternatively trained teachers generally have more content knowledge than emergency-trained teachers. This depth of knowledge suggests that these teachers might be better equipped to develop lesson plans and foster meaningful discussions with students. While a single research finding does not establish a precedent, investigating the reasons behind the lower job satisfaction among alternatively trained teachers compared to emergency-trained ones merits further exploration.

Big Five Personality Findings

The Big Five Personality traits were one of the independent variables examined in this study. The researcher proposed in Hypothesis 1 and Hypothesis 2 that personality would affect job satisfaction. In Hypothesis 1, it was proposed that traditionally, alternatively, and emergency certified teachers will differ significantly in specific personality characteristics. Specifically, the researcher proposed that traditionally trained teachers will demonstrate more conscientiousness than emergency certified teachers. Alternatively and emergency certified teachers may have higher scores in openness than traditionally trained teachers. These results were discussed in the prior section.

In Hypothesis 2, the researcher proposed that a significant correlation existed between personality traits and teacher job satisfaction (Furnham et al., 2005; Furnham et al., 2008; Straw & Ross, 1985). Specifically, teachers demonstrating conscientiousness, emotional stability, and openness are expected to exhibit greater job satisfaction. Conversely, extraversion and agreeableness are not anticipated to have a statistically significant relationship with job

satisfaction. As detailed in Chapter 4 (Conceptual Framework), the Big Five is a valuable and widely respected tool for evaluating an individual's personality (Goldberg, 1993).

While the researcher discussed in the last chapter the limitations of using the TIPI, its use for the type of study conducted with multiple variables is commonly accepted (Gosling et al., 2003). Table 10 depicts the regression coefficients and standard errors concerning personality traits (extraversion, agreeableness, conscientiousness, emotional stability, and openness) among teachers who pursued various certification pathways (emergency, traditional, and alternative) and their corresponding levels of job satisfaction. While there was only one statistically significant finding (the moderation of emotional stability and emergency status), some interesting information can be gathered from this analysis, and some of the findings below confirm the researcher's hypothesis.

Table 10

Data for Big Five Personality Traits

Dependent Variable:	**Knowledge of Teaching**				
Independent Variables:	**Extraverted**	**Agreeableness**	**Conscientiousness**	**Emotional Stability**	**Openness**
Constant	2.868**	2.843**	2.660**	2.588**	3.019**
	(0.136)	(0.261)	(0.297)	(0.196)	(0.233)
Female	-0.044	-0.077	-0.059	-0.008	-0.040
	(0.056)	(0.058)	(0.056)	(0.054)	(0.056)
Master's Degree or Higher	-0.014	-0.018	-0.021	-0.047	-0.019
	(0.054)	(0.053)	(0.054)	(0.052)	(0.054)
Native American	0.034	0.026	0.023	0.025	0.027
	(0.089)	(0.089)	(0.089)	(0.087)	(0.090)
Asian	-0.176	-0.153	-0.148	-0.029	-0.145
	(0.212)	(0.212)	(0.214)	(0.208)	(0.214)
Latinx	-0.183	-0.140	-0.172	-0.165	-0.191
	(0.104)	(0.105)	(0.105)	(0.101)	(0.105)
Black	-0.087	-0.051	-0.075	-0.103	-0.051
	(0.109)	(0.109)	(0.109)	(0.105)	(0.110)
Biracial	-0.047	-0.053	-0.042	-0.041	-0.057
	(0.076)	(0.076)	(0.076)	(0.074)	(0.077)
Individuals have family	0.162**	0.158**	0.159**	0.141**	0.164**

	(0.049)	(0.049)	(0.049)	(0.048)	(0.049)
Taught immediately	-0.023	-0.022	-0.024	-0.028	-0.024
	(0.064)	(0.064)	(0.064)	(0.062)	(0.064)
Worked outside education	-0.018	-0.005	-0.015	-0.036	-0.010
	(0.057)	(0.057)	(0.057)	(0.055)	(0.057)
Traditional Certification	-0.372	-0.188	-0.093	-0.150	-0.052
	(0.308)	(0.308)	(0.357)	(0.229)	(0.300)
Alternative Certification	-0.711*	-0.247	0.165	-0.245	-0.362
	(0.304)	(0.320)	(0.362)	(0.241)	(0.319)
Emergency * Big 5 Extraverted	0.047				
	(0.025)				
Traditional * Big 5 Extraverted	-0.011				
	(0.034)				
Alternative * Big 5 Extraverted	-0.012				
	(0.034)				
Emergency * Big 5 Agreeableness		0.044			
		(0.045)			
Traditional * Big 5 Agreeableness		0.025			
		(0.054)			
Alternative * Big 5 Agreeableness		0.026			
		(0.056)			
Emergency * Big 5 Conscientiousness			0.072		
			(0.049)		
Traditional * Big 5 Conscientiousness			0.005		
			(0.060)		
Alternative * Big 5 Conscientiousness			-0.046		
			(0.060)		
Emergency * Big 5 Emotional Stability				0.096**	
				(0.035)	
Traditional * Big 5 Emotional Stability				0.024	
				(0.045)	
Alternative * Big 5 Emotional Stability				0.031	
				(0.046)	
Emergency * Big 5 Openness					0.009
					(0.041)

Traditional * Big 5 Openness					-0.003
					(0.053)
Alternative * Big 5 Openness					0.044
					(0.056)
Observations	534	534	534	534	534
R-squared	0.059	0.060	0.057	0.116	0.047

Note. Using STATA, this table presents the survey results comparing the independent variable, knowledge of teaching, with the dependent variable, job satisfaction. The standard error is shown in parentheses. **p<0.01, * p<0.05.

Hypothesis 2 suggested that there would be no statistically significant difference between participants scoring high in extraversion and their certification pathway and job satisfaction. The study's findings supported this hypothesis. As an example, the coefficient for emergency certified teachers was 0.047, accompanied by a standard (-error of 0.025). While this suggests a positive correlation between extraversion and job satisfaction among emergency certified teachers, the precision of this relationship is uncertain due to the standard error and since the finding was not statistically significant.

Conversely, for teachers with traditional certification, the coefficient estimates of the extraverted was -0.011, but non-significant. Likewise, among those with alternative certification, the coefficient estimate for extraversion was -0.012, which was also non-significant. However, in Hypothesis 2, the researcher suggested that there would be no correlation between job satisfaction and extroversion, and this analysis confirms this hypothesis.

Analysis of the agreeableness trait among teachers with emergency, traditional, and alternative training did not yield any statistically significant results. These results align with Hypothesis 2, where the researcher proposed that neither extraversion nor agreeableness will be related to job satisfaction. For example, for emergency certification, the coefficient of 0.045 indicates a positive but not statistically significant relationship between the Big 5 concept of agreeableness and job satisfaction. While the differences among the three groups are relatively

small and are not statistically significant, this data confirms Hypothesis 2's assertion that there would be no correlation between agreeableness scores and job satisfaction.

In Hypothesis 1 and 2, the researcher proposed that traditionally trained teachers would score higher in conscientiousness than emergency certified teachers. The research findings did not support this hypothesis. Another aspect of the Big Five personality traits under investigation is emotional stability. Hypothesis 2 posits that teachers with higher emotional stability scores will also exhibit higher job satisfaction scores. In terms of emotional stability, there was a positive correlation between teachers who scored higher in emotional stability and their job satisfaction for emergency certified teachers only. Among emergency certified teachers, the coefficient of 0.096 (0.035) suggests a positive relationship between job satisfaction and emotional stability ($p < 0.01$).

The final finding about personality relates to the Big Five characteristic of openness. In Hypothesis 1, the researcher proposed that emergency certified teachers would have higher scores in openness than traditionally trained teachers, but this hypothesis was not supported. Teachers with alternative certification tend to have the highest openness scores. Teachers with emergency certification have the second highest scores, while those with traditional certification may have slightly lower scores, albeit to a minimal extent. Finally, Hypothesis 2 posits that teachers who score higher on openness will have higher job satisfaction. While this seems true for alternatively and emergency certified teachers, none of the scores are statistically significant and therefore do not prove Hypothesis 2's assertion.

Self-efficacy

Self-efficacy is another variable examined in this study. As previously discussed, self-efficacy in teaching refers to a teacher's belief in their own capability to successfully execute

tasks and achieve desired outcomes in the classroom context (Bandura, 1977; Bandura, 1986; Tschannen-Moran & Hoy, 2001). It encompasses confidence in one's ability to effectively manage classroom dynamics, deliver instructional content, employ various teaching strategies, engage students, and overcome challenges that may arise during the teaching process (Bandura, 1977; Bandura, 1986; Tschannen-Moran & Hoy, 2001). This construct also includes teachers' confidence in their capacity to adapt their teaching approach to meet the diverse needs of students and to facilitate their learning effectively (Bandura, 1977; Bandura, 1986; Tschannen-Moran & Hoy, 2001). Ultimately, self-efficacy plays a crucial role in shaping teachers' behaviors, attitudes, and instructional practices, influencing the quality of teaching and students' academic outcomes. These variables encompass the concepts of knowledge of teaching and the ability to be effective in instructing students (Bandura, 1977; Bandura, 1986; Tschannen-Moran & Hoy, 2001).

In Hypothesis 3, the researcher noted there would be a positive correlation between the knowledge of teaching and job satisfaction (e.g., Carter et al., 1988; Darling-Hammond 2000a, 2000b; Reynolds, 1995), and this was covered earlier in the chapter. Hypothesis 3 also postulated that traditionally trained teachers would be more satisfied with their jobs because they are more prepared for the classroom's challenges. The results of this survey do not support this hypothesis, but the study does suggest a positive finding. The study's findings for emergency and alternatively certified teachers demonstrate statistical significance between knowledge of teaching and job satisfaction. Below is a discussion of each of these findings.

Research indicates that alternatively and emergency certified teachers may face greater difficulties in managing their classroom, engaging their students, and implementing effective instructional strategies compared to traditionally trained novice teachers (e.g., Carter et al., 1988;

Darling-Hammond, 1990, 2000a, 200b). Hypothesis 4 comprises three components. Initially, it asserts that the capacity to engage students in learning is linked to job satisfaction. Secondly, it posits that job satisfaction for alternatively and emergency certified teachers is expected to increase as their proficiency in creating meaningful lessons improves (instructional strategies). Finally, it suggests that the ability to manage their classroom is correlated with their job. satisfaction. Table 11 presents the survey results comparing the independent variables, student engagement, instructional strategies, and classroom management, with the dependent variable, job satisfaction.

While the data supported certain aspects of this hypothesis, intriguing nuances also emerged. The data indicated that as emergency and alternatively certified teachers gained confidence in their teaching abilities, their job satisfaction increased (e.g., Carter et al., 1988; Darling-Hammond, 1990, 2000a, 200b). For example, alternatively certified teachers who were confident in their ability to engage students in meaningful instruction experienced a statistically significant increase of 0.146 (0.052) in job satisfaction ($p < 0.01$). Both emergency and traditionally trained teachers also had a positive correlation between job satisfaction and their ability to engage students. Emergency certified teachers exhibited a coefficient of 0.081 (0.042), while traditionally trained teachers showed a coefficient of 0.077 (0.053). In both cases, there was a positive association between job satisfaction and the teacher's ability to engage students.

Table11

Moderation Analysis of Self-Efficacy and Job Satisfaction

Dependent Variable:			
Independent Variables:	**Student Engagement**	**Instructional Strategies**	**Class Management**
Constant	2.553**	2.520**	2.818**
	(0.294)	(0.303)	(0.302)
Female	-0.063	-0.037	-0.052

	(0.052)	(0.055)	(0.053)
Master's Degree or Higher	-0.044	-0.037	-0.037
	(0.050)	(0.053)	(0.051)
Native American	0.036	0.032	-0.027
	(0.084)	(0.088)	(0.086)
Asian	0.063	-0.092	0.048
	(0.202)	(0.211)	(0.206)
Latinx or Hispanic	-0.241*	-0.192	-0.232*
	(0.098)	(0.103)	(0.100)
Black or African American	-0.139	-0.081	-0.163
	(0.103)	(0.108)	(0.106)
Biracial or multiracial	-0.081	-0.070	-0.070
	(0.072)	(0.075)	(0.073)
Has a family or is a caregiver	0.129**	0.161**	0.122**
	(0.046)	(0.048)	(0.047)
Work immediately out of college as a teacher	0.129**	0.161**	0.122**
	(0.046)	-0.048	(0.047)
Worked outside of education before teaching	-0.067	-0.052	-0.081
	(0.060)	(0.063)	(0.061)
Traditional Cert	0.016	-0.008	-0.007
	(0.053)	(0.056)	(0.054)
Alternative Cert	-0.561	0.098	-0.995*
	(0.367)	(0.398)	(0.390)
Emergency Cert * Student Engagement	0.081		
	(0.042)		
Traditional Cert * Student Engagement	0.077		
	(0.053)		
Alternative Cert * Student Engagement	0.146**		
	(0.052)		
Emergency Cert * Instructional Strategies		0.080	
		(0.042)	
Traditional Cert * Instructional Strategies		-0.023	
		(0.056)	
Alternative Cert * Instructional Strategies		0.041	
		(0.053)	
Emergency Cert * Classroom Management			0.043
			(0.041)
Traditional Cert * Classroom Management			0.131*
			(0.054)
Alternative Cert * Classroom Management			0.141**
			0.092
Observations	534	534	534
R-squared	0.167	0.078	0.136

Note. Using STATA, this table presents the survey results comparing the independent variables, student engagement, instructional strategies, and classroom management, with the dependent variable, job satisfaction. The standard error is shown in parentheses. **p<0.01, * p<0.05.

A notable finding in the research pertains to classroom management, where both traditionally and alternatively certified teachers exhibited higher job satisfaction for each point they received in this domain. Traditionally trained teachers experienced a 0.131 increase for every point in classroom management ($p < 0.05$), and alternatively certified teachers had a substantial 0.141 increase in job satisfaction for each point ($p < 0.01$). However, the data showed no statistically significant increase in job satisfaction for emergency certified teachers concerning their ability to manage a classroom. This data is surprising given the fact that emergency certified teachers often struggle to manage their students (e.g., Reynolds, 1995; Veenman, 1984). A discussion of this discovery will occur in Chapter 6, where the researcher will delve into the implications for school districts and school leaders as they navigate the training of teachers who have pursued diverse pathways to certification.

In the realm of knowledge of teaching, a noteworthy observation emerged with no statistical significance across all three certification pathways, specifically in the realm of instructional strategies. Both alternative and emergency certified teachers did not experience a statistically significant increase in job satisfaction associated with confidence in their ability to employ engaging instructional strategies. However, emergency certified teachers had a positive correlation between their ability to implement effective instructive strategies and job satisfaction (coefficient is 0.080 and standard error is 0.042). For every one-unit increase in instructional strategies, emergency certified teachers have a 0.080 increase in job satisfaction. Likewise, for every one-unit increase in implementing effective instructional strategies, alternatively certified teachers are estimated to experience a 0.041 increase in job satisfaction, with a standard error of 0.053. Interestingly, traditionally certified teachers showed a negative correlation (-0.023) with a standard error of 0.056 between job satisfaction and points received in instructional strategies,

although this observation did not achieve statistical significance. This data raises the possibility that the confidence of traditionally trained teachers in planning lessons may not significantly impact their job satisfaction, possibly because such tasks align closely with their training.

The final component of self-efficacy is classroom management. Hypothesis 5 suggests that traditionally trained teachers will have more self-efficacy in classroom management and will, as a result, feel more satisfied with their jobs. This assertion was found to be statistically significant for both traditionally and alternatively trained teachers. With a coefficient of 0.131 and a standard error of 0.054, traditionally certified teachers exhibit a stronger positive correlation between their certification type and job satisfaction concerning classroom management. Additionally, the standard error of 0.054 indicates the precision of the estimate, with an insignificant margin of error. Thus, for every one-unit increase in classroom management skills (represented by the coefficient of 0.131), traditionally certified teachers experience a corresponding increase of approximately 0.054 units in job satisfaction. This finding is statistically significant at the $p < .05$ level.

Moreover, alternatively certified teachers demonstrated the most substantial statistically significant correlation among all certification pathways between their proficiency in managing students and job satisfaction. With a coefficient of 0.141 and a standard error of 0.052, alternatively certified teachers experienced a 0.141 increase in job satisfaction for every one-unit increase in their ability to manage their students. This result is highly significant at the $p < 0.01$ level.

Finally, emergency certified teachers did not experience a significant increase in job satisfaction because of their ability to manage their students. The correlation between job satisfaction and classroom management among emergency certified teachers was relatively small

and statistically insignificant. This finding is consistent with existing research indicating that novice teachers tend to overestimate their ability to manage students (Weinstein, 1989) effectively. Further discussion on this topic will be provided in the subsequent chapter.

Grit

In this section, we will delve into the participants' grit scores. Hypothesis 6 proposed that there will be a positive correlation between traditionally trained teachers' job satisfaction and grit scores and their FIT-Choice scores. The underlying assumption behind this hypothesis is that traditionally certified teachers are better prepared for the challenges of teaching because they are trained to become teachers, whereas alternatively and emergency certified teachers typically enter the profession out of necessity and do not plan to be teachers before entering the classroom.

Subsequently, in the following section titled "FIT-Choice Variable," we will explore the differences in certification scores and teachers' alignment with their roles. The data gathered from this survey did not support the assertion in Hypothesis 6 that traditionally certified teachers who have high grit scores will have higher job satisfaction scores than emergency and, alternatively, certified teachers. In fact, traditionally, certified teachers did not exhibit higher job satisfaction, irrespective of their grit scores. For traditionally certified teachers, with a coefficient of -0.009 and a standard error of 0.100, there is a negligible negative relationship between traditional certification and grit, suggesting that traditionally certified teachers may have slightly lower levels of grit when compared to emergency certified teachers.

Table 12 survey results compare the independent variable (grit) with the dependent variable (job satisfaction). Thus, for every one-unit traditionally certified teacher's score toward grit, there is a -0.009 decrease in job satisfaction, although this relationship is not statistically significant. Like traditionally trained teachers, there was a slightly negative correlation between

job satisfaction and grit for alternatively certified teachers. With a coefficient of -0.081 and a standard error of 0.103, alternatively certified teachers have a -0.081 (0.103) decrease in job satisfaction for every one-unit increase in grit. Interestingly, only emergency certified teachers exhibited a significant relationship between grit and job satisfaction. For every one-point increase in grit, emergency certified teachers experienced a statistically significant increase of 0.200 in job satisfaction ($p < 0.05$).

Table 12

Moderation Analysis of the Relationship Between Grit and Satisfaction

Dependent Variable	**Satisfaction**
Independent Variable	**GRIT**
Constant	2.374**
	(0.304)
Female	-0.068
	(0.055)
Master's Degree or Higher	-0.021
	(0.053)
Native American	0.037
	(0.088)
Asian	-0.135
	(0.210)
Latinx or Hispanic	-0.209*
	(0.103)
Black or African American	-0.095
	(0.108)
Biracial or Multiracial	-0.018
Had a family or were a caregiver	0.143**
	(0.049)
Worked immediately as a teacher	-0.031
	(0.063)
Worked first outside of education	-0.030
	(0.063)
Emergency Cert *GRIT	0.200*
	(0.080)
Traditional Cert * GRIT	-0.009
	(0.100)
Alternative Cert * GRIT	-0.081
	(0.103)

Observations	534
R-squared	0.076

Note. Using STATA, this table presents the survey results comparing the independent variable, grit, with the dependent variable, job satisfaction. The standard error is shown in parentheses. **p<0.01, * p<0.05.

FIT-Choice Variables

This final independent variable was derived from Richardson and Watt's FIT-Choice project, which delves into comprehending individuals' career decision-making processes and outcomes, particularly within the teaching domain (Richardson & Watt, 2006). Richardson and Watt (2006) created this framework, which is founded on the expectancy-value theory, to offer "a comprehensive and coherent model to guide systematic investigations into the question of why people choose a teaching career" (p. 31). By utilizing Richardson and Watt's FIT-Choice scale, the researcher was able to assess individuals' alignment with their chosen career or occupation. As discussed in Chapter 3, the FIT-Choice scale gauges several factors pertinent to career fit.

Through the evaluation of these factors, this study aims to affirm Hypothesis 6, which states that teachers with traditional training would exhibit higher FIT-Choice scores compared to emergency and alternatively trained teachers, who often enter the profession out of necessity. Specifically, Hypothesis 6 suggests a positive correlation will be found between traditionally trained teachers' job satisfaction and their FIT-Choice scores in the area of Socialization Influences, Self-Perception, and Social Utility Value. Understanding the differences among FIT-Choice scores could offer valuable insights into which facets of "FIT" may most significantly influence teachers' job satisfaction based on their certification pathway.

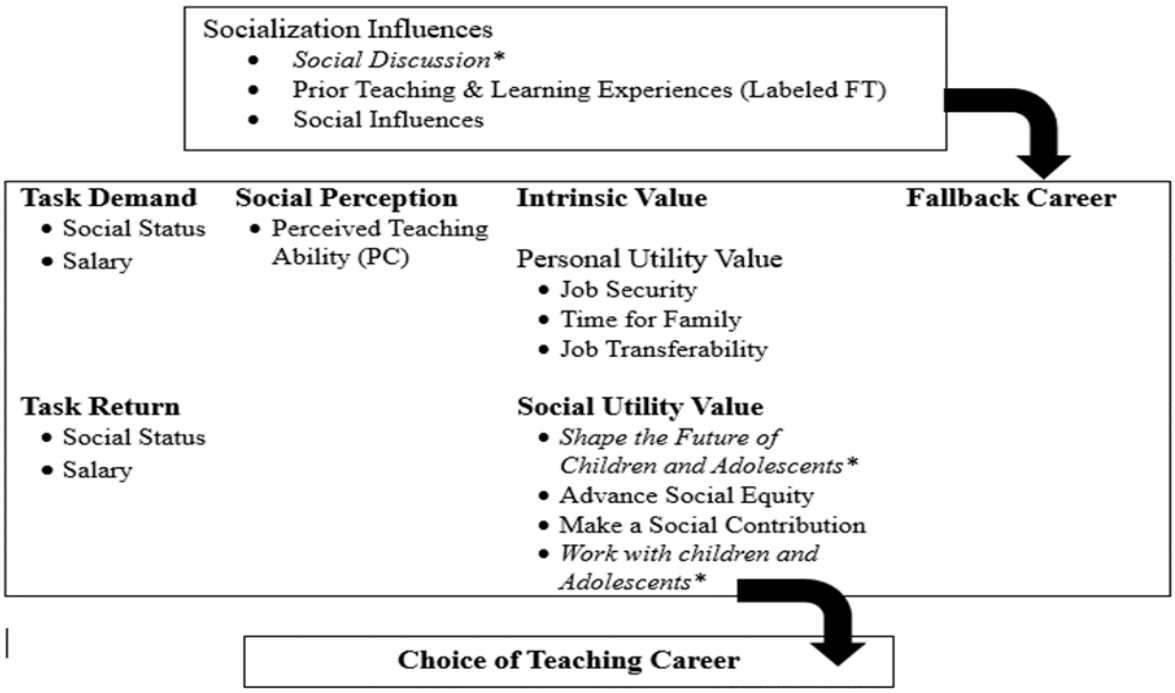
FIT-Choice Framework: Socialization Influences

In the FIT-Choice Teaching Framework (Richardson & Watt, 2006), social influences refer to external factors and societal dynamics that impact an individual's decision to pursue

teaching as a career. These influences can stem from various sources, including family, peers, mentors, cultural norms, and societal attitudes toward teaching. There are three components of this category. In this study, two of the three were assessed: 1) Prior teaching and learning experiences and 2) social influences on prospective teachers. Because of the length of the survey, social discussion was not measured. This decision should not have adversely affected this study since so many other variables were examined. Figure 3 is the visual representation of this model.

Figure 3

FIT- Choice Model



Note. This is the visual representation of the FIT-Choice model (Richarson & Watt, 2006)
*Variables not assessed in this study have an asterisk and are in italics.

In Richardson and Watt's FIT-Choice framework, "influenced by former teachers" refers to a factor or component within the framework that assesses the extent to which individuals are influenced by their previous experiences with teachers when making decisions about their career choice, particularly in choosing to become teachers themselves. This component reflects the idea

that individuals' interactions with former teachers can play a significant role in shaping their perceptions, attitudes, and motivations toward the teaching profession. Positive experiences with former teachers, such as being instructed by those who have effective, dynamic teaching methods and who offer mentorship and encouragement, may inspire individuals to pursue teaching as a career path. Conversely, negative experiences may deter individuals from considering teaching as a viable career option.

Table 13 presents the survey results comparing the independent variables influenced by former teachers and social influences with the dependent variable, job satisfaction. Overall, the data collected about this topic suggested that being influenced by former teachers is positively associated with job satisfaction across all three certification pathways, though these findings are not significant. While this analysis does not support Hypothesis 6, it does indicate that individuals from all three certification pathways are inclined to enter teaching because of their relationships with former teachers, a factor associated with heightened job satisfaction.

Table 13

Moderation Analysis for FIT-Choice Socialization Influences

Dependent Variable	**Job Satisfaction**	
	Influenced by former Teacher	Social Influences
Constant	2.846**	2.928**
	(0.169)	(0.116)
Female	-0.047	-0.031
	(0.054)	(0.055)
Master's Degree or Higher	-0.048	-0.018
	(0.053)	(0.053)
Native American	0.047	0.047
	(0.087)	(0.089)
Asian	-0.158	-0.193
	(0.207)	(0.211)
Latinx or Hispanic	-0.198	-0.225*
	(0.101)	(0.104)

Black or African American	-0.041	-0.065
	(0.106)	(0.108)
Biracial or Multiracial	-0.044	-0.059
	(0.074)	(0.076)
Has a family or is a caregiver	0.158**	0.166**
	(0.047)	(0.048)
Work immediately out of college as a teacher	-0.074	-0.036
	(0.063)	(0.063)
Worked outside of education before teaching	-0.002	-0.004
	(0.055)	(0.056)
Traditional Certification	-0.342	-0.097
	(0.226)	(0.118)
Alternative Certification	-0.404*	-0.129
	(0.196)	(0.119)
Emergency Cert * Influenced by Former Teacher	0.022	
	(0.014)	
Traditional Cert * Influenced by Former Teacher	0.024	
	(0.020)	
Alternative Cert * Influenced by Former Teacher	0.027	
	(0.018)	
Emergency Cert * Social Influences		0.012
		(0.008)
Traditional Cert * Social Influences		0.005
		(0.010)
Alternative Cert * Social Influences		0.003
		(0.010)
Observations	534	534
R-squared	0.106	0.072

Note. Using STATA, this table presents the survey results comparing the independent variables influenced by former teachers and social influences, with the dependent variable, job satisfaction. The standard error is shown in parentheses. **p<0.01, * p<0.05.

The second category of Socialization Influences in Richardson and Watt's FIT-Choice scale (2006) is social influences. Social influences refer to external factors and societal dynamics that shape individuals' decisions to pursue teaching as a career. This component encompasses the social and cultural factors that influence individuals' perceptions of teaching as a career, as well as the societal expectations and norms surrounding the teaching profession. These influences can stem from various sources, including family, peers, mentors, cultural norms, and societal

attitudes toward the teaching profession. Social influences interact with other factors, such as personal values, job attributes, and career motivations, to shape individuals' career choices and decisions. Social influences play a significant role in shaping individuals' perceptions, motivations, and intentions related to entering the teaching profession.

From the discussion above, it is apparent that social influences may steer specific individuals toward teaching. For all three certification pathways, social influences on prospective teachers are positively correlated with job satisfaction, but these were statistically significant. For emergency certified teachers, the coefficient of 0.012 indicates a slightly positive relationship between social influences and teacher job satisfaction. Table 11 presents the survey results comparing the independent variables influenced by former teachers and social influences, with the dependent variable, job satisfaction, indicating some level of uncertainty in this estimate. This association is weaker when compared to emergency certified teachers.

Overall, Socialization Influences within Richardson and Watt's FIT-Choice framework highlight the importance of considering external factors and societal dynamics in understanding individuals' decisions to pursue teaching as a career. By recognizing the impact of social influences, policymakers, educators, and stakeholders can develop strategies to attract and retain high-quality teachers and support the continued growth and success of the teaching profession. In an era when fewer college students are entering the teaching profession, understanding the relationship between the elements of Socialization Influences and high school and college student's interest in education should be emphasized. School districts and universities should explore “grow your own programs,” with incentives to become teachers to attract competent individuals to the teaching profession (Chu & Weems, 2014; Gist et al., 2019; Valenzuela, 2017).

FIT- Choice Framework: Self-Perception

The FIT-Choice component, perceived competence, falls under the category of Self-Perception. In this category, individuals responded to questions that assessed their perceived competence – their belief that they have what it takes to be effective teachers. Table 14 portrays the survey results comparing the independent variable, perceived competence, with the dependent variable, job satisfaction. Prospective teachers' perceived competence arises from their strong belief in their capability to meet the responsibilities and demands of teaching effectively. This belief encompasses the range of skills and abilities vital for effective instruction, including lesson planning, classroom management, student engagement, assessment and feedback, and creating a positive learning atmosphere. This perception may stem from the individual's own assurance that they can become an effective teacher, from the encouragement others have given them who believe in their potential as educators, or from a combination of both factors.

Table 14

Moderation Analysis for FIT-Choice Perceived Competence

Dependent Variable	**Job Satisfaction**
Independent Variable	**Perceived Competence**
Constant	2.791**
	(0.205)
Female	-0.074
	(0.053)
Master's Degree or Higher	-0.037
	(0.051)
Native American	-0.000
	(0.085)
Asian	-0.145
	(0.203)
Latinx or Hispanic	-0.219*
	(0.100)
Black or African American	-0.108
	(0.104)

Biracial or Multiracial	-0.078
	(0.073)
Has a family or is a caregiver	0.139**
	(0.047)
Work immediately out of college as a teacher	-0.064
	(0.061)
Worked outside of education before teaching	0.022
	(0.054)
Traditional Certification	-0.646*
	(0.260)
Alternative Certification	-0.537*
	(0.245)
Emergency Cert Perceived Competence (PC)	0.029
	(0.018)
Traditional Cert Perceived Competence (PC)	0.051*
	(0.023)
Alternative Cert Perceived Competence (PC))	0.041
	(0.022)
Observations	534
R-squared	0.142

Note. Using STATA, this table presents the survey results comparing the independent variable, perceived competence, with the dependent variable, job satisfaction. The standard error is shown in parentheses. **p<0.01, * p<0.05.

For emergency certified teachers, the coefficient indicating perceived confidence is 0.029, with a standard error of 0.018, but this was not significant. Similarly, for traditionally certified teachers, a one-unit increase in the FIT-Choice category of perceived competence is associated with a 0.051 increase in teacher job satisfaction. This relationship is statistically significant at the $p < 0.05$ level. For alternatively certified teachers, the observed effect was not statistically significant when considering the moderating influence of the certification pathway.

In summary, the data partially supports Hypothesis 6. Among traditionally trained teachers, there exists a statistically significant positive correlation between perceived competence and job satisfaction. However, further exploration of this construct, particularly as universities, state departments of education, and school districts delve into the Grow Your Own program, could offer valuable insights into the characteristics of prospective teachers that are most conducive to being effective educators.

FIT-Choice Scale: Personal Utility Value

There are three components under Personal Utility Value: Job Security, Time for Family, and Job Transferability. This component encompasses several of the extrinsic values that compel individuals to become teachers: job security, time with family, and job transferability. Job security is one of the most appealing inducements to lure people to become teachers. Since there will always be a new generation of students starting school, there will always be a need for teachers to guide and instruct them. According to the National Education Association (NEA), teaching stands out as one of the most stable professions, earning a job security rating of 4.4 out of 5.5 (NEA, 2023). This consistent demand across the nation ensures that capable teachers can confidently secure and maintain their positions (Garcia & Weiss, 2019). Table 15 describes the survey results comparing the independent variables, job security, job transferability, and time with family, with the dependent variable, job satisfaction.

The statistical data gathered from this research study regarding job security consistently shows little correlation between teacher job satisfaction and job security. For instance, for alternatively certified teachers, there is a slight positive correlation between job security and job satisfaction. The coefficient of 0.005 indicates that for every one-unit increase in perceived job security, there is an associated slight increase of 0.007 units in job satisfaction. For traditionally certified teachers, the coefficient of 0.007 indicates that a one-unit increase in perceived job security is associated with a 0.007-unit increase in job satisfaction. Finally, for alternatively certified teachers, the negative coefficient of -0.015 implies that a one-unit increase in perceived job security is associated with an increase of 0.015 units in job satisfaction.

The lack of a significant positive correlation between job security and job satisfaction could be due to a variety of factors. First, while job security typically implies stability in

employment, it may not necessarily translate to higher job satisfaction if other aspects of the job, such as workload, support, or fulfillment, are lacking. Educators may prioritize factors beyond mere job security when evaluating their overall job satisfaction. Second, the COVID-19 pandemic introduced unprecedented challenges and uncertainties in the education sector, including shifts to remote learning, changes in school policies, and concerns about health and safety. These external factors may overshadow considerations of job security and influence educators' perceptions of job satisfaction.

Table 15

Moderation Analysis for FIT-Choice Personal Utility

Dependent Variable	**Job Satisfaction**		
Independent Variables	**Job Security**	**Job Transferability**	**Time with Family**
Constant	2.988**	3.173**	3.187**
	(0.160)	(0.130)	(0.139)
Female	-0.046	-0.037	-0.030
	(0.056)	(0.056)	(0.056)
Master's Degree or Higher	-0.018	-0.028	-0.007
	(0.053)	(0.054)	(0.054)
Native American	0.033	0.029	0.041
	(0.089)	(0.090)	(0.090)
Asian	-0.137	-0.145	-0.191
	(0.212)	(0.213)	(0.213)
Latinx or Hispanic	-0.192	-0.184	-0.180
	(0.104)	(0.105)	(0.104)
Black or African American	-0.058	-0.085	-0.035
	(0.109)	(0.110)	(0.110)
Biracial or Multiracial	-0.058	-0.053	-0.039
	(0.076)	(0.076)	(0.077)
Has a family or is a caregiver	0.155**	0.179**	0.179**
	(0.049)	(0.049)	(0.049)
Work immediately out of college as a teacher	-0.045	-0.036	-0.022
	(0.064)	(0.064)	(0.064)
Worked outside of education before teaching	-0.010	-0.014	-0.020
	(0.056)	(0.057)	(0.057)
Traditional Certification	-0.270	-0.262	-0.201
	(0.185)	(0.144)	(0.156)
Alternative Certification	-0.176	-0.361**	-0.093
	(0.184)	(0.139)	(0.155)
Emergency Cert * Job Security	0.007		
	(0.010)		

Traditional Cert * Job Security	0.015		
	(0.012)		
Alternative Cert * Job Security	0.005		
	(0.013)		
Emergency Cert * Job Transferability		-0.011	
		(0.010)	
Traditional Cert * Job Transferability		0.020	
		(0.012)	
Alternative Cert * Job Transferability		0.025*	
		(0.013)	
Emergency Cert * Time for Family			-0.007
			(0.006)
Traditional Cert * Time for Family			0.007
			(0.008)
Alternative Cert * Time for Family			-0.001
			(0.008)
Observations	534	534	534
R-squared	0.063	0.054	0.052

Note. Using STATA, this table presents the survey results comparing the independent variables, job security, job transferability, and time with family, with the dependent variable, job satisfaction. The standard error is shown in parentheses. **p<0.01, * p<0.05.

Thirdly, job satisfaction is often influenced by factors such as supportive leadership, opportunities for professional growth, and a positive work environment. Even if educators have job security, dissatisfaction with other aspects of their work environment may diminish overall job satisfaction. During the COVID-19 pandemic, many educators might not have felt supported as they juggled their home life, the threats of illness and death, with their work expectations. Finally, educators' perceptions of job security and their relationship with job satisfaction can vary based on personal experiences, values, and career aspirations. Some educators may prioritize job security more than others, while others may prioritize factors such as work-life balance or autonomy.

In conclusion, the absence of a clear correlation between job security and job satisfaction suggests that multiple factors contribute to educators' overall satisfaction in their roles. Further research is needed to understand the nuanced relationships between job security, job satisfaction,

and the broader context of educators' experiences, particularly in the aftermath of the COVID-19 pandemic.

Another component of the category of Personal Utility Value is the concept of “time for family,” which assesses the extent to which individuals prioritize spending time with their family when making career decisions, particularly in choosing to pursue teaching as a career. "Time for family" reflects individuals' values, preferences, and intrinsic motivations related to maintaining a healthy work-life balance and prioritizing family commitments. It recognizes the importance of personal relationships and family responsibilities in shaping individuals' career choices and job satisfaction. Unexpectedly, these results were not significant for emergency certified teachers. Moreover, like emergency certified teachers, there exists a slight negative correlation between time spent with family and job satisfaction for alternatively certified teachers, albeit it is marginal. For this group, the coefficient of -0.001 suggests that for every one-unit increase in time for family, there is a very slight decrease of 0.001 units in job satisfaction.

While none of these findings are statistically significant, it is interesting to consider that there is a 200% difference in the coefficient between traditionally certified teachers and the coefficient for emergency certified ones. It appears paradoxical that there is a negative correlation between "time for family" for both emergency and alternatively certified teachers. However, this finding may make sense when one considers the difference in training between traditionally and nontraditionally certified teachers. Because of their student teaching, mentorship, and experiences preceding their entry into the teaching profession, traditionally trained teachers may possess better preparation than nontraditionally trained ones to manage the after-hours responsibilities such as grading papers, lesson planning, parent communication, and other demands outside the classroom placed upon teachers.

Another component of Personal Utility Value is the concept of job transferability. Teachers who move from one state to another can acquire a provisional license, which allows them to instruct students until they complete the required coursework or testing. While there will always be some bureaucracy and paperwork necessary to transfer a teaching license from one state to another, most states will usually honor a teaching certificate without earning a whole new license (Gallant, 2022). Often, teachers must complete a missing class or take a content subject assessment. Furthermore, eight states, including Oklahoma, offer full reciprocity (Gallant, 2022).). Job Transferability is one of the factors assessed in the FIT-Choice Framework, as this variable has been found to be an attractive benefit of teaching (Richardson & Watt, 2006).

Surprisingly, the independent variable, job transferability, had a minimal but negative correlation to teacher job satisfaction for emergency certified individuals. This finding is unexpected, as conventional wisdom would suggest that emergency certified individuals have chosen teaching due to reduced teacher licensing expectations, thus enabling their rapid entrance into the teaching profession. For emergency certified teachers, the coefficient of -0.011 indicates that a negative association exists between perceived job transferability and job satisfaction. Specifically, a one-unit increase in perceived job transferability is associated with a decrease of 0.011 units in job satisfaction. The standard error of 0.010 suggests some level of uncertainty since the actual effect size could vary by up to 0.011 units above or below the estimated coefficient of -0.011.

For traditionally trained teachers, the 0.020 coefficient implies a positive correlation between job transferability and teacher job satisfaction. A one-unit increase in perceived job transferability is associated with an increase of 0.020 units in job satisfaction. The standard error of 0.012 indicates some level of uncertainty in this estimate since it is more than half the

coefficient. This finding seems aligned with contemporary logic since job transferability is often a factor influencing prospective teachers' decisions to pursue education as a career.

For alternatively certified teachers, a positive and statistically significant correlation exists between job transferability and teacher job satisfaction ($p < .05$). Thus, the coefficient of 0.025 indicates that for every one-unit increase in job transferability, there is a 0.025 increase in job satisfaction. The standard error of 0.013 suggests that while there is some uncertainty in the estimate, it is less pronounced since the standard error is close to half of the coefficient of 0.025. This finding does align with the conventional wisdom that job transferability is a positive advantage of teaching. While this finding is not related to any hypothesis, job transferability will be discussed in Chapter 6 as a strategy for teacher recruitment.

FIT-Choice Scale: Social Utility Value

Enhanced social equity and making social contributions were the two FIT-Choice Social Utility Value components that were measured. Enhanced social equity assesses candidates' commitment to social justice issues. Social equity is measured by items or statements that gauge individuals' attitudes, beliefs, and intentions regarding equal access to educational resources and opportunities for students from diverse backgrounds, including those historically marginalized or underrepresented in the education system. It also assesses teachers’ commitment to fostering an inclusive and supportive learning environment that respects and celebrates diversity in all its forms, including race, ethnicity, gender, socioeconomic status, sexual orientation, and abilities. Incorporating social equity as a dimension in the FIT-Choice Scale allows researchers to explore how individuals' perceptions of social justice and equity influence their decision-making processes related to pursuing a teaching career. It also provides insights into the alignment

between individuals' values and aspirations and the broader societal goals of promoting equitable educational opportunities for all students.

Table 16 exhibits the survey results comparing the independent variables, advance social equity and make social contribution, with the dependent variable, job satisfaction. For all certification pathways, for every one-unit increase in social equity, there is a positive increase in teacher job satisfaction. For traditionally and emergency certified teachers, this increase is not statistically significant. Nevertheless, a positive correlation exists. For instance, for emergency certified teachers, there is a slight increase (0.003) in job satisfaction for every one-unit increase in job satisfaction.

Table 16

Moderation Analysis for FIT-Choice for Social Utility

Dependent Variable	**Job Satisfaction**	
Independent Variables	**Advance Social Equity**	**Make a Social Contribution**
Constant	3.061**	3.108**
	(0.156)	(0.235)
Female	-0.045	-0.024
	(0.055)	(0.054)
Master's Degree or Higher	-0.021	-0.015
	(0.053)	(0.053)
Native American	0.027	0.004
	(0.088)	(0.087)
Asian	-0.119	-0.154
	(0.208)	(0.207)
Latinx or Hispanic	-0.215*	-0.254*
	(0.103)	(0.102)
Black or African American	-0.107	-0.089
	(0.107)	(0.106)
Biracial or Multiracial	-0.083	-0.051
	(0.075)	(0.074)
Has a family or is a caregiver	0.168**	0.164**
	(0.048)	(0.048)
Work immediately out of college as a teacher	-0.049	-0.052
	(0.063)	(0.062)

Worked outside of education before teaching	-0.021	-0.022
	(0.056)	(0.055)
Traditional Certification	-0.414*	-0.866**
	(0.191)	(0.290)
Alternative Certification	-0.565**	-0.836**
	(0.187)	(0.280)
Emergency Cert * Advances Social Equity	0.003	
	(0.013)	
Traditional Cert * Advances Social Equity	0.034	
	(0.017)	
Alternative Cert * Advances Social Equity	0.044*	
	(0.017)	
Emergency Cert * Make Social Contribution		-0.003
		(0.018)
Traditional Cert * Make Social Contribution		0.067**
		(0.024)
Alternative Cert * Make Social Contribution		0.062**
		(0.023)
Observations	534	534
Standard Error	0.092	0.107

Note. Using STATA, this table presents the survey results comparing the independent variables, advance social equity and make social contribution, with the dependent variable, job satisfaction. The standard error is shown in parentheses. **p<0.01, * p<0.05.

Finally, for alternatively certified teachers, the 0.044 coefficient with a 0.017 standard error indicates a statistically significant relationship at the $p < 0.05$ level. Thus, for every one-unit increase in social equity, alternatively certified teachers have a 0.044 increase in job satisfaction. Given that alternatively and traditionally certified teachers typically opt for teaching as a career choice, and social equity often serves as a sought-after advantage in teaching, it is reasonable to anticipate that they would derive greater job satisfaction compared to emergency certified teachers, who frequently turn to teaching as a fallback career option. This phenomenon will be discussed in the subsequent chapter.

Under the Social Utility Value, the second component measured was the desire of prospective teachers to pursue teaching in order to “make a social contribution” to society. This concept typically refers to an individual's desire or intention to engage in work or career paths

that have a beneficial societal contribution or positively influence the well-being of others. Teaching draws individuals aspiring to impact society positively, enhance students' lives, and influence the future in a meaningful way. The findings from this question yielded two statistically significant results that support Hypothesis 6.

For traditional teachers, there is a strong positive correlation between the perception that they are making a social contribution and job satisfaction. Their coefficient of 0.067 indicates that for every one-unit increase in the variable “make a social contribution,” there is a 0.067 increase in job satisfaction. With a standard error of 0.024, this variance, which is less than half of the coefficient, appears statistically reliable. Furthermore, this finding is highly significant at the $p < 0.01$ level. This discovery not only supports Hypothesis 6 but also aligns logically with the notion that traditionally certified teachers are more inclined than those from emergency and alternative certification pathways to choose teaching as a career premeditatedly.

Similarly, alternatively certified teachers also have a positive correlation between the concept of “making a social contribution” and teacher job satisfaction. The coefficient of 0.062 indicates a robust positive correlation between the perception of making a social contribution and job satisfaction among alternatively certified teachers. Thus, for every one-point increase in the variable “make a social contribution, there is a 0.062 increase in teacher job satisfaction. This association is also highly statistically significant at the $p < 0.01$ level.

Unlike traditionally and alternatively certified teachers, emergency certified teachers experienced a slightly negative association between the variable “making a social contribution” and job satisfaction. The coefficient of -0.003 indicates that with each one-unit increase in the perception of making a positive contribution, there is a corresponding decrease of -0.003 on

average in teacher job satisfaction. However, this association lacks statistical significance, as evidenced by the standard error of 0.018, suggesting uncertainty or variability in the finding.

Overall, the data indicates that traditionally and alternatively certified teachers perceive a stronger positive correlation between making a social contribution and job satisfaction compared to emergency certified teachers. Additionally, no statistically significant association was observed among emergency certified teachers. As discussed earlier, emergency certified teachers are typically less prepared for the teaching profession than their traditionally and alternatively certified counterparts. While they may have a general understanding of teachers' influence on students, they lack firsthand experiences validating this positive impact, especially when compared to traditionally certified teachers who have undergone student teaching experiences. Moreover, contextual differences exist between the two groups. Emergency certified teachers often enter teaching under urgent or unexpected circumstances, which may result in different motivations and priorities compared to traditionally and alternatively certified teachers. They may focus more on immediate challenges and responsibilities rather than the broader societal impact of their work. This particular finding warrants further exploration, suggesting that there may be other reasons why emergency certified individuals choose to become teachers, or their motivations may be similar but more nuanced than those of traditionally and alternatively certified teachers.

FIT-Choice Framework: Fallback Career

Richardson and Watt (2005, 2006, 2016) explored in their research teachers who opt into education as a secondary career option. This concept encompasses both career switchers, who frequently transition from financially secure and esteemed professions to teaching, and individuals who choose to teach due to uncertainty about their future career direction.

Frequently, these individuals have previously pursued other careers that they either found dissatisfying or were compelled to leave due to perceived inadequacy or lack of success. In the context of this research study, understanding the motivation of teachers who select a nontraditional teaching path can provide insights into their career decision-making processes and the factors influencing their choice.

Table 17 depicts the survey results comparing the independent variables, job security, job transferability, and time with family, with the dependent variable, job satisfaction.

Table 17

Moderation Analysis for FIT-Choice Fallback Career

Dependent Variable	**Job Security**
Independent Variable	**Fallback Career**
Constant	3.277**
	(0.117)
Female	-0.058
	(0.054)
Master's Degree or Higher	-0.013
	(0.052)
Native American	0.045
	(0.087)
Asian	-0.074
	(0.207)
Latinx or Hispanic	-0.135
	(0.102)
Black or African American	0.034
	(0.107)
Biracial or Multiracial	-0.029
	(0.074)
Has a family or is a caregiver	0.132**
	(0.048)
Work immediately out of college as a teacher	-0.057
	(0.062)
Worked outside of education before teaching	-0.006
	(0.055)
Traditional Certification	0.013
	(0.126)
Alternative Certification	-0.049
	(0.116)

Emergency Cert * Fallback Career	-0.030*
	(0.013)
Traditional Cert * Fallback Career	-0.024
	(0.018)
Alternative Cert * Fallback Career	-0.011
	(0.016)
Observations	534
R-squared	0.110

Note. Using STATA, this table presents the survey results comparing the independent variables, job security, job transferability, and time with family, with the dependent variable, job satisfaction. The standard error is shown in parentheses. **p<0.01, * p<0.05.

Traditionally, alternatively, and emergency certified teachers all had a negative correlation between the concept of fallback career and job satisfaction, although only emergency certified teachers' findings were statistically significant. For traditionally certified teachers, there was a -0.024 negative correlation between job satisfaction and the concept of a fallback career. For every one-unit increase in the concept of a fallback career, traditionally certified teachers have a -0.024 decrease in job satisfaction. This finding is not statistically significant.

For alternatively certified teachers, the coefficient of -0.011 (0.016) suggests that there is a negative relationship between fallback career and job satisfaction. For every one-unit increase in the idea of a fallback career, there is a negative 0.011 decrease in job satisfaction. For emergency certified teachers, there is also a negative and statistically significant correlation ($p < 0.005$) between fallback career and job satisfaction. For every one-unit increase in the concept of a fallback career, alternatively certified teachers have a decrease of 0.030 in job satisfaction. The standard error of 0.013 and the fact that this finding is statistically significant imply that this finding is unlikely to have occurred by chance alone.

There are a variety of explanations about the reason all three certification pathways had a negative relationship between the concept of a fallback career and job satisfaction. For instance, the individuals who participated in this survey may have felt less satisfied with their teaching

position because of the impact the COVID-19 pandemic had on traditional schools, forcing all parties to rely on remote instruction and making an abrupt shift in traditional school structures. Additionally, legislative mandates have constrained many educators' perceptions concerning job security and their ability to teach according to their discretion. For example, gubernatorial mandates that dissolve diversity, equity, and inclusion (DEI) departments and initiatives, as well as restrictive laws like the 2021 enactment of Oklahoma House Bill 1775, which limits the discussion of specific concepts related to race and gender, have prompted teachers passionate about social justice to either leave the profession or feel less assured in their instructional methods. Moreover, individuals who perceive their fallback career as less desirable may experience external pressures, such as financial obligations or family expectations, which compel them to stay in teaching despite their job dissatisfaction. Irrespective of the cause, it is essential to investigate the negative correlation between job satisfaction and the notion of a fallback career to comprehend this adverse relationship, as this research might provide insights into how to make education more attractive to potential future educators.

Concluding Remarks

This study aims to address gaps in research by exploring variations in background, personality, and job-related characteristics among novice teachers with different teaching licenses. Given the growing reliance on emergency certification, the findings hold broad implications for school districts, administrators, university certification programs, policymakers, and researchers. Identifying pertinent indicators of teacher success can aid administrators in their hiring processes. Furthermore, investigating the demographics of emergency certified teachers and their satisfaction with their career choices can assist supervisors in providing necessary support for their professional development. Additionally, this research will offer insights to guide

administrators and policymakers in developing support systems to meet the needs of new teachers. Lastly, amidst the evolving landscape of teacher licensure pathways, this study will serve as a valuable resource for future researchers examining the effectiveness of emergency certification and informing policy decisions in this domain. While the results did not confirm all the Hypotheses, some significant findings will be discussed in the next chapter.

Chapter 6: Discussion, Conclusion, and Suggestions for Future Research

The shortage of qualified teachers has compelled school districts to hire uncertified educators, intensifying disparities in access to high-quality instruction across the country, particularly impacting students of color (Cardichon et al., 2020). This gap in equitable access to experienced educators is a longstanding issue in U.S. schools. (Cardichon et al., 2020). Amidst these challenges, educators face even more uncertainty in the aftermath of the COVID-19 pandemic, which brought forth significant challenges and changes to education (De La Rosa, 2020).

For many communities and school districts, the COVID-19 pandemic exacerbated the multitude of issues facing school districts and schools (De La Rosa, 2020). For example, Fahle et al. (2023) discovered that student test performance decreased, most notably in areas with the highest COVID-19 death rates. Within these communities, both adults and students experienced feelings of depression, anxiety, and fear due to significant disruptions in their daily routines, particularly in regard to sending children to school (Fahle et al., 2023). Additionally, in communities exhibiting lower voter turnout, indicative of distrust in government and institutions, school closures had an even more profound impact (Fahle et al., 2024). On top of these challenges, many teachers were retiring, and there were few traditionally certified novice educators to fill these vacancies (Center on Budget and Policy Priorities, 2018; Cross, 2017; Darling-Hammond, 2003; Farmer, 2017; Garcia & Weiss, 2018; Ingersoll, 2001; Loeb et al., 2004; Ostroff, 2017; Partelow, 2019; Sutcher et al., 2016;).

The convergence of the COVID-19 pandemic and the ongoing wane in student interest in pursuing teaching careers has resulted in a gradual decrease in the number of qualified teachers engaging with students. (Darling-Hammond, 2003; Ingersoll, 2001; Loeb et al., 2004; Partelow,

2019). Moreover, the pandemic has disproportionately affected vulnerable students and underserved communities, potentially increasing reliance on unqualified teachers (De La Rosa, 2020; Fahle et al., 2024). The rise of emergency certified teachers, coupled with the pandemic, raises questions about factors influencing individual's decisions to enter teaching. Understanding these factors can inform recruitment, support, and policy efforts.

This study, conducted in a Southwestern urban school district, explores diverse motivations of teachers, potentially differing between traditionally and alternatively certified educators, with implications for policy and practice. Examining the demographics and satisfaction of emergency certified teachers can aid in providing necessary support for their success. Two central questions directed the research. The first question asked, "How traditionally, alternatively, and emergency certified novice teachers differ in background, personality, and job-related characteristics, including knowledge of teaching, grit, self-efficacy, teacher fit, and job satisfaction?" The second question explored the moderating effect teacher certification played on job satisfaction and other independent variables (knowledge of teaching, personality, grit, self-efficacy, and FIT). This research may inform district and school administrators and policymakers on adequate support for new teachers and guide future research on the efficacy of emergency certification as a pathway to licensure.

Synthesis of Hypothesis Findings

As mentioned earlier, there are few studies exploring teacher certification pathways and the impact of emergency certification on school culture, climate, student achievement, and teacher morale (Linek et al., 2012; Mobra & Hamlin, 2020; Podolsky et al., 2019). This study aimed to uncover parallels and distinctions among certification pathways, offering recommendations for future research and guidance for district leaders and school principals.

Moreover, while the intent of the study was not focused on the COVID-19 pandemic and its impact on teachers, it was conducted during the first three years of the COVID-19 pandemic, from 2019 to 2022. Therefore, its results provide insights into the effect this pandemic had on novice teachers' personalities, self-efficacy, grit, and job satisfaction.

Hypothesis 1 Findings

Table 18 reveals the findings of Hypothesis 1, which has two specific components. The first is that traditionally trained teachers will demonstrate more conscientiousness than emergency certified teachers. This hypothesis was not supported. In fact, the inverse was found true, although not statistically significant. Emergency certified teachers' conscientiousness of 0.072 indicated a positive correlation between an increased score in conscientiousness and job satisfaction. While traditionally trained teachers had a positive and much smaller correlation, alternatively certified teachers had a negative correlation between conscientiousness and job satisfaction, suggesting that the higher their conscientiousness score, the lower their job satisfaction.

Table 18

Hypothesis 1 Findings

Hypothesis #	Hypothesis Wording	Finding
Hypothesis 1 Component 1	Traditionally trained teachers will demonstrate more conscientiousness than emergency certified teachers	The findings do not support hypothesis 1
Component 2	Alternatively and emergency certified teachers may have higher scores in openness than traditionally trained teachers.	The findings do not support hypothesis 1

Note: This table summarizes the findings for Hypothesis 1.

While none of these scores were statistically significant, it does raise some questions about this dimension. Given that conscientiousness assesses traits such as organization,

responsibility, and goal-directedness, it is intriguing that this study's results did not support this hypothesis. It is conceivable that the condensed version of the Big Five Personality assessment provided inadequate results, and opting for a more thorough version could produce different findings. Then again, it could suggest that conscientiousness, as measured by the Big Five, may not be as critical for ensuring teacher job satisfaction as previously assumed.

The second component of Hypothesis 1 suggested that alternatively and emergency teachers may have higher scores in openness than traditionally trained teachers. This hypothesis seemed to make sense given the fact that openness measures people's inclination toward being open to new experiences, ideas, emotions, and unconventional beliefs. Those who score high in openness tend to be imaginative, curious, creative, and open-minded, while those low in openness may prefer routine, tradition, and familiarity. Individuals who opt to become emergency certified teachers appear to possess a willingness to embrace new experiences, even ones for which they may not have received formal training. The data gathered from this research project did not support this hypothesis. Once more, this discovery could stem from the utilization of a briefer personality assessment tool for gauging openness. Perhaps the abbreviated instrument was not sufficient for testing this hypothesis.

Another possible explanation for the finding is that the COVID-19 pandemic might have influenced people's attitudes while taking the personality assessment (Audet et al., 2023). In a study conducted following the COVID-19 pandemic, researchers discovered that conscientiousness, rather than openness to new experiences, emerged as the strongest predictor of increased engagement in online classes (Audet et al., 2023). This study suggests that openness to experience and conscientiousness may have been shaped through different pathways (Audet et

al., 2023). Openness to experiences seemed to be mediated by intrinsic motivation; conscientiousness, on the other hand, was mediated by self-efficacy (Audet et al., 2023).

Interestingly, conscientiousness did not produce any statistically significant results in this research study. However, there was a positive correlation between this Big 5 trait and job satisfaction for both emergency and traditionally trained teachers. Alternatively trained teachers had a negative, but not significant, relationship between conscientiousness and job satisfaction. The data from this study seems to reflect the research findings about conscientiousness during the pandemic (Audet et al., 2023).

The only Big 5 trait that had statistically significant results was emotional stability, but this finding was for only emergency certified teachers. These teachers had a 0,096 increase in their job satisfaction for every one-unit increase in emotional stability. This finding, which was significant at the $p < 0.05$ level, seems logical given the challenges that emergency certified teachers faced during the time this survey was conducted.

As discussed earlier, this survey was conducted in the summer of 2022, and the results were those surveys submitted by novice teachers in their first three years of teaching. Some of those surveyed would have started their career during the 2019-2020 school year, the year COVID-19 shut down most Oklahoma schools from March to May 2020. These teachers would have started the year under normal circumstances only to end it in an unprecedented pandemic.

Those who had completed two years of teaching would have started their teaching careers in the Fall of 2020, a time when many school districts were still employing distance learning and other strategies to minimize student and staff exposure to the virus. Many of these two groups of inexperienced teachers had to rapidly adapt to the challenges of online teaching without the

continual face-to-face assistance of their colleagues, school leaders, and district resources, as many school districts required teachers to isolate during the spring.

Finally, the least experienced members of the novice teachers surveyed would have commenced their teaching careers in the Fall of 2021, a time when school districts had primarily reverted to face-to-face instruction and were addressing the learning challenges resulting from the pandemic's aftermath (Audet et al., 2023; Donnelly & Patrinos, 2022). Navigating the social, emotional, and academic needs of students during and immediately after the COVID-19 pandemic might have posed significant challenges for novice teachers. This study's findings indicate that emergency certified teachers who demonstrated emotional stability were able to derive satisfaction from their work amidst this uncertainty. This finding underscores the need for additional exploration. School districts that support emergency certified teachers in harnessing their emotional stability may yield positive outcomes for individuals entering teaching without the traditional training typically afforded to educators.

Hypothesis 2 Findings

Hypothesis 2 posits that neither extraversion nor agreeableness will correlate with job satisfaction. Table 19 details the results that support Hypothesis 2. This aspect of the hypothesis was indeed supported since the study did not uncover any statistically significant findings confirming a relationship between extraversion, agreeableness, and job satisfaction. Moreover, this finding aligns with recent research that suggests that single personality traits alone do not determine teacher effectiveness (Bastian et al., 2017). Instead, it is the impact of that trait on teacher behavior, decision-making, and learning outcomes that hold significance (Bastian et al., 2017). A logical progression from this study would involve delving deeper into the relationship

between personality and teacher behavior to understand strategies to ensure the effectiveness and retention of emergency teachers.

Table 19

Hypothesis 2 Findings

Hypothesis #	Hypothesis Wording	Findings
Hypothesis 2 Component 1	Teachers who score high in conscientiousness, emotional stability, and openness will have higher job satisfaction.	Statistically significant at the $p < 0.05$ for alternatively certified teachers
Component 2	Neither extraversion nor agreeableness will be associated with job satisfaction.	Since no statistical findings were observed, Hypothesis 2 is deemed accurate.

Note: This table summarizes the findings for Hypothesis 2.

Hypothesis 3 Findings

Table 20 details the findings for both components of Hypothesis 3, which consists of two separate components. . The first hypothesis posits that there exists a positive correlation between teaching knowledge and job satisfaction. The second suggests that traditionally trained teachers would exhibit higher job satisfaction due to their better preparation for classroom challenges. Let us review each of these components.

For both emergency and alternatively certified teachers, the data revealed that as they grew more confident in their teaching skills, their job satisfaction levels rose. For emergency certified teachers, this relationship is decisively statistically significant at the $p < .01$ level. For alternatively certified teachers, there is also a statistically significant correlation at the $p < .05$ level between knowledge of teaching and job satisfaction. Traditionally certified teachers did not have this statistically significant relationship.

While this finding may seem counterintuitive, it makes sense given the fact that most traditionally certified teachers should enter the workplace with the pedagogy, classroom management, and other instructional skills necessary to meet the demands of the job, so infusing

their professional development with training on these topics may not necessarily increase their job satisfaction. Moreover, this finding should guide school districts as they plan their professional development for their teachers. For alternatively and emergency certified teachers, frontloading professional development with knowledge of effective teaching could improve teacher job satisfaction and, hopefully, teacher retention (Allegretto, 2022; Allegretto & Mishel, 2018; Allegretto & Mishel, 2016). Based on this study, providing such training might not be as beneficial for traditionally trained teachers. Other training, which will be discussed at the end of this chapter, might be best for meeting the needs of traditionally trained teachers.

Table 20

Hypothesis 3 Findings

Hypothesis #	Hypothesis Wording	Findings
Hypothesis 3 Component 1	The first hypothesis posits that there exists a positive correlation between teaching knowledge and job satisfaction.	Statistically significant at the $p < 0.01$ level for emergency certified teachers. Statistically significant at the $p < 0.05$ level for alternatively certified teachers. Not statistically significant for traditionally trained teachers.
Hypothesis 3 Component 2	Traditionally trained teachers will be more satisfied with their jobs because they are more prepared for the classroom's challenges.	The findings do not support Hypothesis 3.

Note: This table summarizes the findings for Hypothesis 3.

The second part of Hypothesis 3 stated that traditionally trained teachers would exhibit higher job satisfaction due to their better preparation for classroom challenges. This study did not confirm this component of the hypothesis. Traditionally certified teachers did not exhibit higher job satisfaction. In fact, there was a negative correlation between the licensure of traditionally certified teachers and their job satisfaction. This discovery warrants further investigation. School leaders frequently share anecdotal observations regarding the strain undertrained teachers place on the morale of traditionally trained teachers, who often shoulder the responsibility of teaching

both their students and their colleagues. These personal observations are worth further exploration as we add underqualified students to the teaching ranks.

Hypothesis 4 Findings

Hypothesis 4 examines the assertion that self-efficacy is composed of four specific facets. Table 21 presents the results of the four facets of Hypothesis 4. The first facet proposes that self-efficacy, characterized by the ability to engage students in learning, develop meaningful lessons, and manage a classroom effectively, will impact teacher job satisfaction. The second component suggests that job satisfaction among alternatively and emergency certified teachers will rise as they enhance their competency in instructional strategies, leading to the creation of meaningful and engaging lessons. The third component posits that job satisfaction among alternatively and emergency certified teachers will increase as they enhance their ability to manage their classrooms effectively. In light of these components, the subsequent analysis delves into the empirical examination of each aspect to discern the nuanced effects on teacher job satisfaction and effectiveness.

The first facet proposes that self-efficacy, characterized by the ability to engage students in learning, develop meaningful lessons, and manage a classroom effectively, will impact teacher job satisfaction. All three groups had a positive correlation between student engagement in learning and job satisfaction. However, the only statistically significant finding was that alternatively certified teachers had a 0.146 increase in job satisfaction for every one-point increase in their ability to engage students in learning. This finding was statistically significant at the $p < 0.01$. The finding that only alternatively certified, and not also emergency or certified teachers, showed statistically significant results in this aspect of self-efficacy could stem from various factors. One possible explanation is the differences in training and preparation between

the two groups. Alternatively certified teachers often have a degree in the content they are teaching and, therefore, may be better equipped with content knowledge, skills, and, thus, the confidence needed to demonstrate higher levels of self-efficacy in their ability to engage their students in meaningful lessons.

While there was a positive correlation between the ability to engage students in meaningful lessons and job satisfaction for traditionally and emergency certified teachers, this relationship was not statistically significant. One potential explanation for this finding is that conventional training programs might not adequately cover or prioritize specific skills or strategies relevant to the demand for teaching during the COVID-19 pandemic. Moreover, the sudden transition from in-person to virtual instruction could have posed a challenge to traditionally trained teachers, for which they may have been ill-prepared. Additionally, the growing presence of alternatively and emergency certified teachers in the teaching profession may have placed an additional burden on traditionally trained teachers to support these less prepared colleagues. This expectation may have been further exacerbated during the COVID-19 pandemic because of the challenges of distance learning and the fear of illness and death. Further investigation into the specific factors contributing to the discrepancy between emergency, traditionally, and alternatively certified teachers could provide more insight into this phenomenon.

Hypothesis 4's second element specifies that the job satisfaction of alternatively and emergency certified teachers will increase as they improve their proficiency in instructional strategies, resulting in the development of meaningful and engaging lessons. The research data does not support this finding. The lack of job satisfaction despite enhanced instructional skills among emergency and alternatively certified teachers could be attributed to several factors.

These teachers might still face challenges in implementing instructional strategies effectively due to limited experience or resources, even though they may have a theoretical understanding of these strategies. Additionally, job satisfaction may be influenced by various other factors, such as administrative support, classroom management, teacher collegiality, and overall work environment, which may not improve solely with enhanced instructional competency. Furthermore, the discrepancy in job satisfaction could also stem from differences in expectations or personal goals among individual teachers within these certification categories. Finally, the strain of teaching during a global pandemic may have interfered with individual and collective job satisfaction.

The third aspect of Hypothesis 4 suggests that the enhancement of classroom management skills among alternatively and emergency certified teachers will lead to an increase in their job satisfaction. Indeed, for alternatively certified teachers, their job satisfaction increased by 0.141 for each one-unit increase in their ability to manage their classroom. This finding was statistically significant at the $p < 0.01$ level. This finding was also confirmed for traditionally certified teachers and will be discussed later in this chapter.

The relationship between job satisfaction and the ability to manage students is supported by research, as effective classroom management is crucial for creating a conducive learning environment (Zhukova, 2018; Tschannen-Moran et al., 1998; Plax et al., 1986a; Plax et al., 1986b). When teachers are better equipped to manage their classrooms, they can reduce disruptions, engage students more effectively, and foster a positive atmosphere for learning (Plax et al., 1986a; Plax et al., 1986b; Tschannen-Moran et al., 1998 Zhukova, 2018). This improved classroom management can lead to a greater sense of control and accomplishment for teachers, which in turn may enhance their job satisfaction. Additionally, when teachers feel more

confident in their ability to handle classroom challenges, they may experience lower levels of stress and frustration, further contributing to their overall job satisfaction (Plax et al., 1986a; Plax et al., 1986b; Tschannen-Moran et al., 1998 Zhukova, 2018).

Table 21

Hypothesis 4 Findings

Hypothesis #	Hypothesis	Finding
Hypothesis 4 Component 1	Self-efficacy, the ability to successfully engage students in learning, create meaningful lessons, and manage a classroom, will affect teacher job satisfaction).	Statistically significant at the $p < 0.01$ for alternatively certified teachers
Hypothesis 4 Component 2	Alternatively and emergency certified teachers' job satisfaction is expected to increase as they improve instructional skills in creating meaningful lessons.	The findings do not support Hypothesis 4.
Hypothesis 4 Component 3	Alternatively and emergency certified teachers' job satisfaction is expected to increase as they improve their capacity to manage their classrooms effectively.	Statistically significant at the $p < 0.01$ for alternatively certified teachers. No statistical significance for emergency certified teachers.

Note: This table summarizes the findings for Hypothesis 4.

While there was a statistically significant correlation between job satisfaction and the ability to manage students among traditional and alternatively certified teachers, the data did not support this finding for emergency certified teachers. Although the data hinted at an increase in job satisfaction among emergency certified teachers as their ability to manage students improved, this finding lacked statistical significance. Notably, emergency certified teachers were the only group where such a correlation did not reach statistical significance.

For emergency certified teachers, managing students is only one of many skills they must develop while on the job because of the differences in their training backgrounds, experiences, and the context in which they enter the teaching profession. These teachers often undergo accelerated training programs or minimal preparation compared to traditionally and alternatively certified teachers. As a result, they may face more significant challenges in developing effective

classroom management skills, which could diminish the impact of such skills on their job satisfaction.

Furthermore, emergency certified teachers who participated in this survey encountered unique stressors and obstacles related to their sudden entry into the teaching profession during the COVID-19 pandemic. In addition to their unfamiliarity with classroom dynamics, they likely had minimal support from mentor teachers and administrators, particularly during periods of school lockdowns and the implementation of distance learning. These factors could mitigate the potential positive effects of improved classroom management skills on job satisfaction.

While effective classroom management is generally associated with enhanced job satisfaction among teachers, the specific relationship may vary depending on individual circumstances and factors. Further research into the experiences and perceptions of emergency certified teachers regarding classroom management and job satisfaction could provide deeper insights into this issue.

Hypothesis 5 Findings

Hypothesis 5 argues that traditionally trained teachers will have more self-efficacy in classroom management and will, as a result, feel more satisfied with their jobs. Table 22 features the evidence that supports Hypothesis 5. The data supported the findings in the category of classroom management. For each one-unit increase in the ability to manage students, traditionally certified teachers experienced a 0.131 increase in their job satisfaction. This finding was statistically significant at the $p < 0.05$ level. This finding aligns with research that suggests that traditionally trained teachers, when compared to alternatively and emergency certified teachers, often have more experience because of student teaching and mentorships and,

therefore, are better equipped to manage students upon becoming novice teachers (Darling-Hammond, 2000; Laczko-Kerr & Berliner, 2002).

Nevertheless, it is noteworthy that traditionally trained teachers' self-efficacy did not correlate with job satisfaction in the domains of instructional strategies and student engagement. There are several possible reasons for this finding. First, traditional teacher education programs vary and may not consistently prioritize the same aspects of teaching. Some may not always prioritize student engagement or instructional strategies to the same extent as classroom management. Consequently, traditionally trained teachers may not receive the same explicit training or support in all three of these areas, leading to lower levels of self-efficacy and potentially less impact on job satisfaction.

Second, instructional strategies encompass a wide range of teaching techniques, methods, and approaches, each with its own set of challenges and requirements. Traditionally trained teachers may feel less confident in implementing specific instructional strategies, especially those that are more complex or require specialized training.

Table 22

Hypothesis 5 Findings

Hypothesis #	Hypothesis	Finding
Hypothesis 5	Traditionally trained teachers will have more self-efficacy in classroom management and will, as a result, feel more satisfied with their job.	Only statistically significant at the $p < .05$ level for classroom management.

Note: This table summarizes the findings for Hypothesis 5.

Additionally, student engagement can be influenced by factors such as student motivation, learning styles, and cultural backgrounds. Traditionally trained teachers may face challenges in effectively engaging diverse groups of students, particularly if their training programs did not adequately prepare them for working with diverse populations, including

multilingual students. Furthermore, the effectiveness of instructional strategies and student engagement techniques can be influenced by various contextual factors, such as class size, resources available, and school culture. Traditionally trained teachers may encounter challenges in implementing specific strategies due to limitations in these areas, which can impact their self-efficacy and job satisfaction.

Finally, as aforementioned, with the onset of the COVID-19 pandemic, traditionally trained teachers may have been unprepared to shift immediately to online and distance learning. Most likely, their training was focused on face-to-face instruction. Engaging learners in online classes proved to be challenging for the most gifted, experienced educator. It was mostly very challenging for traditionally trained teachers, just as it was for alternatively and emergency certified teachers.

Overall, while traditionally trained teachers may excel in certain aspects of teaching practice, such as classroom management, they may require additional support and training to effectively implement instructional strategies and promote student engagement, which can impact their self-efficacy and job satisfaction in these areas.

Hypothesis 6 Findings

Hypothesis 6 argues that traditionally trained teachers are expected to exhibit a positive correlation between their job satisfaction and their scores in grit and FIT-Choice categories such as Socialization Influences, Self-Perception, and Social Utility Value. Table 23 displays the evidence that supports the components of Hypothesis 6. This hypothesis has four components. The first argues that a positive correlation would exist between job satisfaction and grit scores for traditionally trained teachers. Grit refers to the union of perseverance and passion for achieving long-term goals. It involves having the stamina to persist in the face of challenges and

setbacks, as well as maintaining effort and interest over time. Essentially, individuals who stay committed to their goals and exert sustained effort to achieve them may be described as having grit. These individuals push forward even when confronted with obstacles or failures. Gritty individuals often display resilience, determination, and a strong sense of purpose, which enable them to overcome adversity and ultimately succeed in their endeavors.

Considering its definition, one would logically expect Hypothesis 6 to demonstrate a positive correlation between grit and job satisfaction among traditionally trained teachers. This observation arises from the fact that this group of teachers underwent deliberate preparation and education to become classroom educators. However, this aspect of Hypothesis 6 was not confirmed by this research study. In fact, there was a negative (0\-0.009), but not statistically significant, relationship between grit and job satisfaction. Alternatively certified teachers also had a negative (0.081) but not a significant relationship between grit and job satisfaction. Furthermore, emergency certified teachers exhibited the only positive (0.200) and statistically significant ($p < .005$) relationship between grit and job satisfaction.

There are a variety of reasons for this result. First, emergency certified teachers have to be adaptable during their first few years. This observation might have been especially valid during the years prior to this survey because of the challenges present to classroom teachers during the COVID-19 shutdown and return to classrooms. Not only did these individuals have to quickly adapt to the demands of teaching without the benefit of traditional training, but many also had to adjust quickly to the shutdown, which prompted distance learning, and then return to face-to-face teaching. Grit, characterized by perseverance and resilience, could help them navigate these challenges and persist in their roles despite the initial hurdles. Furthermore, emergency certified teachers may demonstrate resourcefulness and creativity in finding solutions

to educational challenges, drawing on their diverse backgrounds and experiences. Gritty individuals are often characterized by their ability to find alternative pathways to achieve their goals, which could contribute to their effectiveness and satisfaction as educators. This resourcefulness would most definitely benefit emergency certified teachers during the COVID-19 closure and eventual return to somewhat traditional schooling.

This phenomenon should be explored in future research, given the number of emergency certified teachers entering classrooms across the country and the need to support their acclimation into the profession. We need to identify what makes these teachers "gritty" and how we should support their transition into classrooms, so they meet the needs of their students and remain in the profession.

Table 23

Hypothesis 6 Findings

Hypothesis #	Hypothesis	Finding
Hypothesis 6 Component 1	There will be a positive correlation between traditionally trained teachers' job satisfaction and their grit scores.	This finding does not support this component of Hypothesis 6.
Hypothesis 6 Component 2	There will be a positive correlation between traditionally trained teachers' job satisfaction and FIT-Choice scores in the Socialization Influences category.	No significant findings have been found in the component of Socialization Influences (influenced by former teacher or social influences)
Hypothesis 6 Component 3	There will be a positive correlation between traditionally trained teachers' job satisfaction and FIT-Choice scores in the categories of Self-Perception.	Self-Perception Perceived Ability is statistically significant at the $p < 0.05$ for traditionally trained teachers.
Hypothesis 6 Component 4	There will be a positive correlation between traditionally trained teachers' job satisfaction and FIT-Choice scores in the categories. Social Utility Value.	Under Social Utility Value, the category advanced social equity is not statistically significant. Under Social Utility Value, the category "make a social contribution" is statistically significant at the $p < 0.001$ level for both traditionally and alternatively certified teachers..

Note: This table summarizes the findings for Hypothesis 6.

The second component of Hypothesis 6 included the concept of Richardson and Watt's (2006) FIT-Choice framework, specifically Socialization Influences, Self-Perception, and Social Utility Value. The concept of Socialization Influences has two components that were measured in this study: Influence by prior teachers and social influences. The concept of Self-Perception has only one component: Perceived teaching abilities. The final concept of measured Social Utility Value has two components that were surveyed: Enhanced social equity and make a social contribution.

As previously discussed, Richardson and Watt's Socialization Influences (2006) pertain to the external factors and societal dynamics that shape individuals' decisions to pursue teaching as a career. These influences encompass a range of environmental, cultural, and social factors that impact an individual's perception of teaching and its role within society. Socialization influences may include experiences within the educational system, interactions with teachers and mentors, societal expectations and norms regarding teaching professions, and broader cultural attitudes toward education. For all three certification pathways, there is a positive correlation between social influences and job satisfaction. However, none were statistically significant.

The third component of Hypothesis 6 encompasses the FIT-Choice concept of Self-Perception, which has only one component: perceived ability. Perceived ability encompasses potential teachers' perception of their own competence and capability to succeed in the teaching profession. It involves their self-assessment of the abilities, skills, knowledge, and attributes they deem essential for effective teaching.

Hypothesis 6's third component posited a positive correlation between job satisfaction among traditionally trained teachers and their FIT-Choice scores in the Self-Perception category.

In fact, this aspect of Hypothesis 6 was statistically supported at the $p < 0.05$ level. Traditionally trained teachers' coefficient of 0.051 indicates a positive correlation between job satisfaction and perceived ability. A coefficient of 0.051 means that for every one-unit increase in perceived ability, there is an average increase of 0.051 units in job satisfaction among traditionally trained teachers. Significance at the $p < 0.05$ level means that the relationship between job satisfaction and perceived ability among traditionally trained teachers is statistically significant beyond chance. In other words, it is unlikely to have occurred due to random variation in the data. This level of significance indicates a high level of confidence in the observed relationship. This finding should be more deeply explored, given the need for traditionally trained teachers to fill vacancies.

Furthermore, in an era of teacher shortages, perceived ability is a concept that should be explored (Nesje et al., 2018). First, individuals who score high in this category believe in their innate ability, understanding, and proficiency in the subject and/or grade level they intend to teach. This perception includes not only knowledge of the content itself but also pedagogical content knowledge—the ability to teach the content to students effectively. Next, these individuals have confidence in their ability to implement pedagogical and instructional skills and strategies, such as lesson planning, instructional delivery, classroom management, and assessment techniques to engage students, differentiate instruction, and create a supportive learning environment. Moreover, these individuals believe in their ability to build positive relationships with students, colleagues, parents, and other stakeholders. This confidence includes communication skills, empathy, cultural competence, and the ability to collaborate effectively with others.

Additionally, these teachers believe in their capacity to address challenges and solve problems that will ultimately arise in the classroom or educational setting. This belief includes adaptability, resilience, and the capacity to think critically and creatively to overcome obstacles. Finally, these teachers have confidence in their own ability to perform teaching-related tasks and responsibilities successfully. This self-efficacy fuels their motivation, effort, and persistence in the face of challenges.

Overall, the Perceived Ability category in the FIT-Choice framework reflects individuals' perceptions of their competence and readiness to pursue a career in teaching. It plays a crucial role in shaping their career aspirations, decision-making processes, and, ultimately, their likelihood of entering and succeeding in the teaching profession. Understanding individuals' perceptions of their own ability provides valuable insights into factors influencing teacher recruitment, retention, and professional development efforts. The positive correlation between this concept and traditionally trained teachers' job satisfaction should be further studied. (Nesje et al., 2018)

This section of Hypothesis 6 proposes that there will be a positive correlation between job satisfaction and the FIT-Choice Social Utility Value scores. Social Utility Value is comprised of four parts: Shape the future of children and adolescents, enhance social equity, make social contributions, and work with children and adolescents. FIT-Choice questions from two of the four parts of this concept were measured in this survey: the desire to “enhance social equity” and to “make a social contribution.” The other two components, “shape the future of children and adults, and “work with children and adolescents,” were not measured in this study. In future studies, I would recommend that these two components be also surveyed.

The first of the two components of Hypothesis 6, the desire to enhance social equity, refers to the teachers' motivation to promote fairness, justice, and inclusivity in one's life and occupation, particularly regarding the teaching profession (Richardson & Watt, 2006). While there were no statistically significant findings for the concept of social equity, it is crucial to consider the role this concept plays in recruiting teachers to the profession. As more multilingual students enter our schools, attracting teachers who are committed to social equity will ensure that novice teachers are committed to the increasing diversity in our schools (Paine, 1989; Reynolds, 1995).

This concept is essential in the recruitment of new teachers as social equity may pave the path for diversity and inclusiveness in our schools. First, individuals committed to social equity are committed to ensuring the accessibility of opportunities for students and staff within the profession. These individuals work to ensure that there are equitable pathways for individuals from diverse backgrounds to enter and succeed in teaching and the classroom. Second, these teachers want to ensure that classrooms, departments, schools, and school districts employ fair and impartial educational practices that provide students and staff opportunities for growth and development.

Additionally, these individuals assess the extent to which the teaching profession embraces diversity and fosters an inclusive environment for educators and students. They are committed to recruiting and retaining educators from diverse backgrounds to join their team. They are equally dedicated to promoting cultural competence and addressing disparities in educational outcomes among student populations. Finally, these teachers foster the profession's commitment to promoting social justice and addressing systemic inequities in education. They consider whether educators are equipped with the knowledge, skills, and resources to advocate

for equitable policies and practices, challenge biases and stereotypes, and promote fairness and inclusion in the classroom and broader educational systems.

Overall, social equity in the FIT-Choice model underscores the importance of attracting individuals committed to fairness, justice, and inclusivity within the teaching profession. It highlights the need to address systemic barriers and promote equitable opportunities for all individuals to pursue and succeed in teaching careers, ultimately contributing to more equitable educational outcomes for students and a more just society.

The final section of Hypothesis 6 has to do with the Social Utility Value, "making a social contribution." Hypothesis 6 speculated that traditionally trained teachers would have higher job satisfaction if they felt that they had made a difference in contributing positively to society. This part of Hypothesis 6 was, in fact, found statistically significant at the $p < 0.001$ level. For traditionally trained teachers, there was a 0.067 increase in job satisfaction for every one-unit increase in the category, making a social contribution. The standard error of 0.024, coupled with the statistically significant finding, indicates that the relationship between job satisfaction and making a social contribution among traditionally trained teachers is statistically significant beyond chance. In other words, it is unlikely to have occurred due to random variation in the data. This level of significance indicates a high level of confidence in the observed relationship.

This finding may shed light on how to recruit and retain teachers for the profession. Many educators believe that teaching is one of the most profound ways individuals can help shape future generations (Richardson & Watt,2005). Recruiting individuals dedicated to shaping young minds, advancing social mobility, and nurturing students' interest in civic engagement and responsibility could offer universities, state education departments, school districts, and schools

an effective strategy for creating "grow your own" programs and enhancing teacher recruitment and retention efforts. By attracting and empowering those who value the broader societal contributions of teaching beyond personal career satisfaction, we may move closer to stabilizing the teacher pipeline. Finally, by recognizing the impact of social influences, policymakers, educators, and stakeholders can develop strategies to attract and retain high-quality teachers and support the continued growth and success of the teaching profession.

Limitations of the Study

There are two primary limitations of this study. The first is related to its small sample size. The research was constrained by resource limitations and time constraints, resulting in a sample size that may not adequately represent the diversity within the broader population. Moreover, these research findings should be interpreted with caution, and generalizing the results to a larger population should be approached with awareness of the inherent limitations stemming from the modest sample size. A more extensive and more diverse sample could provide a more robust foundation for drawing broader conclusions and increasing the external validity of the study,

The second limitation is that the study relied on self-reported surveys. This approach introduces the potential for response bias, as participants may provide socially desirable answers or inaccurately recall information. Additionally, the reliance on a single method of data collection limits the depth of insight into participants' experiences. Subsequent research endeavors might consider adopting a mixed-methods approach, integrating surveys with qualitative interviews or observational methods, to enrich the depth and credibility of the gathered data. Recognizing these constraints is crucial for a nuanced interpretation of the study.

This research study, similar to other scientific investigations conducted after the COVID-19 pandemic, presents several limitations that could influence the applicability and dependability of the findings. It is essential to note that the survey was administered in the Summer of 2022, approximately two years after the onset of the COVID pandemic. The study's participants were educators with a minimum of three years of experience in the field, implying that their initial teaching experiences coincided with the challenging 2019-2020 school year, marked by the unprecedented circumstances of the pandemic. These teachers were more likely to have had to grapple with the challenges of transitioning from in-person to online instruction or navigating in-person teaching amidst health concerns for themselves and their families than teachers who started several years before or after them.

Another constraint of the study pertained to the utilization of the Ten Item Personality Measure (TIPI). In scenarios where time constraints are prevalent, researchers, including myself, encounter the dilemma of opting for either a more extensive assessment of the Big Five personality traits or forgoing measurement altogether. With the survey in this study already comprising 113 questions, I opted for the TIPI to evaluate participants' personality attributes. Previous research has indicated satisfactory performance concerning (a) congruence with widely acknowledged Big Five measures across self, observer, and peer appraisals, (b) consistency in test-retest scenarios, (c) correlations with expected external factors, and (d) alignment between self-reported and observer-rated scores (Gosling, Rentfrow, & Swann, 2003). Given that personality constituted just one of several variables examined in this study and was not the principal focus, I chose to acknowledge the diminished psychometric properties linked with the TIPI. However, in retrospect, employing a more comprehensive instrument might have been

preferable, especially considering that the findings appeared lacking in depth and failed to discern significant personality distinctions.

Given the diverse responses of schools and school districts to the pandemic, along with varying attitudes toward student and staff safety, these circumstances pose limitations to the study's generalizability. The novice teachers who participated in this study experienced these complexities of teaching during a pandemic, transitioning from traditional face-to-face instruction to online modalities or continuing face-to-face teaching amidst health concerns for themselves and their families. The varying responses of schools and school districts to the pandemic, coupled with differing attitudes toward the safety of students and staff, present inherent limitations. These discrepancies make it challenging to generalize the study's findings, given the diverse responses observed across schools and districts. Additionally, these variations pose difficulties in controlling confounding variables within the study.

Conclusion

This study, despite its ambitious scope, has provided a wealth of insights through its comprehensive data analysis. While a more focused approach might have been more manageable in hindsight, the study's intriguing findings have the potential to ignite further investigation in future research endeavors. Table 24 presents the statistically significant findings of this study, offering a comprehensive overview of the research's key contributions.

One of the most unexpected findings of this study was the negative connection between job transferability, the independent variable, and teacher job satisfaction among emergency certified individuals. This discovery challenges common beliefs, which suggest that in this era of teacher shortages, emergency certified individuals choose to teach due to reduced teacher licensing requirements. In contrast, traditionally certified teachers demonstrated a positive

correlation at the $p < .01$ level between job transferability and job satisfaction, aligning with conventional wisdom.

This finding is consistent with research, which suggests that job transferability is one of several key features that attract candidates to the teaching profession (Richardson & Watt, 2005; Watt & Richardson, 2007; Watt & Richardson, 2008; Richardson & Watt, 2016). Further investigation into this connection could provide valuable strategies for school districts, universities, and legislative bodies to enhance teacher recruitment and retention. Implementing universal reciprocity of teaching licenses is one practical approach to boost recruitment efforts. Additionally, understanding how to attract teachers to regions with better living conditions, weather, and quality of life could further leverage this finding.

Table 24

Summary of Statistically Significant Findings

Hypothesis Number	*Variable*	*Certification Pathway*	*Statistically Significant*	*Positive or Negative Correlation*
3	*Knowledge of Teaching*	*Emergency*	*$p < .01$*	*Positive*
		Alternative	*$p < .05$*	*Positive*
3	*Job Satisfaction*	*Alternative*	*$p < .05$*	*Negative*
6	*Grit*	*Emergency*	*$p < .05$*	*Positive*
1-2	*Big 5 Emotional Stability*	*Emergency*	*$p < .01$*	*Positive*
4	*Self-Efficacy Student Engagement*	*Alternative*	*$p < .01$*	*Positive*
5	*Self-Efficacy Classroom Management*	*Traditional*	*$p < .05$*	*Positive*
6	*FIT-Choice Perceived Ability*	*Traditional*	*$p < .05$*	*Positive*
6	*FIT-Choice Social Equity*	*Alternative*	*$p < .05$*	*Positive*
6	*FIT-Choice Fallback Career*	*Emergency*	*$p < .05$*	*Negative*
6	*FIT-Choice Job Transferability*	*Traditional*	*$p < .01$*	*Positive*
		Alternative	*$p < .01$*	*Positive*

Note. This table summarizes the statistically significant findings of this study.

The connection between teacher job satisfaction and the ability to manage the classroom is worth exploring. This study confirmed that traditionally and alternatively trained teachers had higher job satisfaction because they were better able to manage their students and the demands of

teaching. This finding resonates with research on the connection between student management proficiency and job satisfaction (Plax et al., 1986a; Plax et al., 1986b; Tschannen-Moran et al., 1998; Zhukova, 2018).

Although this finding was not statistically valid for emergency certified teachers, it is not uncommon for emergency certified teachers to possess an inflated sense of their ability to manage their students (Weinstein, 1989). Furthermore, research indicates that a healthy relationship between principals and teachers is a critical element in teacher retention, especially for alternatively and emergency certified teachers (Easley, 2008). Logically, school districts and school leaders should utilize professional development that is focused on classroom management and student relationships during the first few years of their professional experience. This information should be explored by future research and by school districts and leaders as they plan professional development and discuss teacher retention in their districts and schools.

Building on this information, school districts and schools need to ensure that novice teachers are adequately and consistently trained in classroom management procedures and that assistance can be provided immediately to them when they struggle with effectively managing students, grading, and other components that fall under classroom management. While a one-size-fits-all-fits-all approach might not be the best, having a menu of professional development options available at various developmental levels might lead novice teachers to feel more successful and satisfied with their job. Again, continued research into the relationship between job satisfaction and job confidence in classroom management would be valuable as legislative bodies, school districts, and school leaders grapple with the shortage of qualified teacher candidates to fill vacancies.

Furthermore, for all three categories, there was a positive connection between knowledge of teaching and job satisfaction. In fact, this finding was statistically significant for emergency certified ($p < .01$) and alternatively certified teachers ($p < .05$). School districts should provide novice teachers with early and frequent professional development that enhances their understanding of teaching and supports their growth in classroom instruction. By frontloading this learning, novice teachers will become more effective and experience greater job satisfaction (Harris & Rutledge, 2010). Additionally, enhancing novice teachers' understanding of classroom management, along with increasing their ability to deliver quality instruction, could further improve job satisfaction and support teacher retention.

One significant finding in this research is that teachers with parenting or caretaking responsibilities reported the highest levels of job satisfaction across all demographics. This suggests that creating school environments that foster a sense of family might enhance community and job satisfaction among all teachers. By promoting a familial atmosphere, schools can support teachers' emotional and social needs, thereby potentially improving their overall job satisfaction. Additional strategies could include community building, implementing support systems, mentoring programs, and promoting staff wellbeing. This phenomenon warrants further qualitative, quantitative, and comparative analysis to understand its impact and to develop strategies that can be implemented to benefit the wider teaching community.

It would be interesting to study if the same relationship between being a parent or being a caregiver increases job satisfaction. Does this finding hold true for those in other service professions such as nursing, law enforcement, or the military? Do people who have family obligations have a greater sense of job satisfaction, and if they do, what causes this job satisfaction? Since there is a link between job satisfaction and job performance, understanding

the link between familial responsibility and job satisfaction could provide many industries, not just teaching ways to increase worker productivity and effectiveness (such as, Locke, 1970; Harris & Rutledge, 2010; Roethlisberger & Dickson, 1939).

Research also suggests that teacher collaboration is one of the most effective strategies for promoting meaningful professional development (Zuo et al., 2022). There are several reasons why increasing teacher collaboration will increase job satisfaction. First, teacher collaboration allows teachers to share best practices, exchange effective teaching strategies and methods that lead to improved student performance, and increase instructional capacity (Ford & Youngs, 2018). Second, teacher collaboration allows teachers to learn from each other. Novice teachers learn strategies from experienced teachers, and veteran teachers learn new theories and practice strategies from those newer to the profession.

Moreover, those newer to the profession often bring more diverse and inclusive practices which allow veteran teachers to learn innovative practices to vary their instruction to meet the needs of their students. Furthermore, collaboration ensures a more consistent and coherent educational experience for students across different classes and grade levels. Finally, collaborative teams can brainstorm and implement innovative solutions to common educational challenges. Teachers working together are more likely to adapt to changes and incorporate new technologies and methodologies into their pedagogy: collaboration creates a sense of community and trust and builds strong working teams (Ford, 2019; Forsyth et al., 2011). Many of these structural facilitators of improved teacher learning implicate school and district leaders who have the ability to improve support for teachers and leaders psychologically necessary to improving teaching and learning and reducing educator turnover (Ford et al., 2024; Ford et al., 2020). Turnover, even in the face of a whole new sector of potential educators via emergency

certification, will continue to thwart the development of social capital necessary for school improvement efforts, collaboration, and collective efficacy (Ford & Forsyth, 2021).

In summary, finding ways for novice teachers to learn from veteran teachers in collaborative spaces might be one approach for teacher development in all aspects of instruction and classroom management. Teacher collaboration is vital for enhancing teaching quality, supporting student achievement, fostering professional growth, and creating a positive school culture. It leverages the strengths and experiences of all educators to provide a more effective and enriching educational experience for students..

One of the most noteworthy aspects of the study is understanding the relationship between teacher job satisfaction and the FIT-Choice category of Socialization Influences. With the decrease in teachers, many school districts are opting to formalize “grow your own" programs. One way to do this is to create a teaching pipeline by leveraging students who have positive relationships with their teachers. Groups such as the Golden Apple out of Illinois have partnered with universities and school districts to foster this student-to-classroom teacher pipeline. Providing opportunities for high school students to explore teaching as a career option is a concept worth further research.

Additionally, school districts should explore providing students with mentorships, internships, and shadowing experiences where students can observe and assist teachers in the classroom. Finally, school districts and universities could offer dual credit courses designed to develop teaching skills and pedagogical knowledge among interested students. These courses could focus on areas such as communication, instructional strategies, assessment techniques, and cultural competence.

Providing high school and college students feasible pathways to teacher certification should be more fully students. This research should focus on understanding how to develop clear pathways for students to pursue formal certification and licensure as educators, which include opportunities to build relationships with mentors and guidance on navigating certification requirements, completing necessary coursework, and gaining practical teaching experience, will foster positive attitudes about teaching in these students. This particular area has many possibilities for future research. By tapping into students who have positive relationships with their teachers and nurturing their interest in teaching, educational institutions, school districts, and communities can cultivate a diverse and talented pipeline of future educators who are passionate about making a difference in the lives of students (Valenzuela, 2017).

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Appendix 1: University of Oklahoma IRB Form

The UNIVERSITY of OKLAHOMA

Institutional Review Board for the Protection of Human Subjects

Approval of Initial Submission – Exempt from IRB Review – AP01

Date: May 11, 2022 **IRB#:** 14544

Principal Investigator: Nicolette C. Dennis

Approval Date: 5/11/2022

Exempt Category: 2

Study Title: An Examination of Background, Personality, And Job-Related Characteristics Among Traditionally, Alternatively, and Emergency Certified Novice Teachers In Oklahoma

On behalf of the Institutional Review Board (IRB), I have reviewed the above-referenced research study and determined that it meets the criteria for exemption from IRB review. To view the documents approved 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.

As principal investigator of this research study, you are responsible to:

- Conduct the research study in a manner consistent with the requirements of the IRB and federal regulations 45 CFR 46.
- Request approval from the IRB prior to implementing any/all modifications as changes could affect the exempt status determination.
- Maintain accurate and complete study records for evaluation by the HRPP Quality Improvement Program and, if applicable, inspection by regulatory agencies and/or the study sponsor.
- Notify the IRB at the completion of the project.

If you have questions about this notification or using iRIS, contact the IRB @ 405-325-8110 or irb@ou.edu.

Cordially,

Lara Mayeux

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

The UNIVERSITY of OKLAHOMA

Institutional Review Board for the Protection of Human Subjects

Final Report – Inactivation

Date: July 31, 2024

To: Nicolette C. Dennis

IRB#: 14544

Study Title: An Examination of Background, Personality, And Job-Related Characteristics Among Traditionally, Alternatively, and Emergency Certified Novice Teachers In Oklahoma

Inactivation Date: 07/31/2024

On behalf of the Institutional Review Board (IRB), I have reviewed the Final Report for the above-referenced research study. You have indicated that this study has been completed and should be inactivated. This letter is to confirm that the IRB has inactivated this research study as of the date indicated above.

Note that this action completely terminates all aspects and arms of this research study. Should you wish to reactivate this study, you will need to submit a new IRB application.

If you have questions about this notification or using iRIS, contact the IRB at (405) 325-8110 or irb@ou.edu.

Cordially,

Lara Mayeux

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

Appendix 2: Consent

Dennis Dissertation Survey Questions

Would you like to be involved in research at the University of Oklahoma?

I am Nicolette Dennis from the Educational Administration, Curriculum and Supervision and I invite you to participate in my research project entitled, *An Examination of Background, Personality,* and *Job-Related Characteristics Among Traditionally, Alternatively, And Emergency Certified Novice Teachers in Oklahoma*. This research is being conducted at the University of Oklahoma. You were selected as a possible participant because you are a newly hired public school teacher. You must be at least 18 years of age to participate in this study, have had 3 years or less teaching experience in a public school, and are presently teaching in Oklahoma.

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? This research aims to examine differences between emergency, alternative, and traditionally trained teachers new (three years or less) to Midwestern school districts.

How many participants will be in this research? About 200 or more public school teachers who have worked in their position for 3 years or less.

What will I be asked to do? If you agree to be in this research, you will be asked to complete a

survey that asks you some questions about your background, your personality and cognitive ability, beliefs about teaching, and attitudes about the profession.

How long will this take? The survey will take approximately 20 minutes.

What are the risks and/or benefits if I participate? There are no risks and no benefits from being in this research. Participation in this study is voluntary and is in no way formally tied to nor will data be shared with Tulsa Public School, the TPS Talent Management Department, or any other school district.

Will I be compensated for participating? You will not be reimbursed for your time and participation in this research. However, participants who complete the survey may participate in a drawing for six $50 Amazon gift cards.

Who will see my information? There will be no information in my final research report 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.

What Platform will be used: Qualtrics will be used to survey participants. Data is collected via an online survey system (or virtual platform) that has its own privacy and security policies for keeping your information confidential. No assurance can be made as to their use of the data you provide.

What will happen to my data in the future? After removing all identifiers, we will not share your data or use it in future research projects.

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.

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 the researcher by phone at (505) 205-7556 or by email at nikkidennis@ou.edu or her research advisor Tim Ford by phone at (918) 660-3963 or by email at tgford@ou.edu.

You can also contact the University of Oklahoma – Norman Campus Institutional Review Board 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 keep this document for your records. By providing information to the researcher(s), I am agreeing to participate in this research:

- Yes, I agree to participate in this study (1)
- No, I do not agree to participate in this study (2)

Appendix 3: Demographic Survey Questions

This survey is aimed at teachers who have taught for 3 years or less and presently are teaching in Oklahoma. Do you meet this participation requirement?

Yes, I have been a teacher for three years or less.

No, I have been teaching for 4 years or more.

Q1 How do you identify yourself?

1. Male
2. Female
3. Non-binary/third gender
4. Prefer not to say
5. Transgender

Q2 Race How do you identify yourself?

1. Other _____
2. Biracial/Mixed Race _____
3. Native American
4. Asian
5. Latinx
6. Black
7. White

Q3 Did you become a teacher immediately after graduating from college**?**

1. No
2. Yes

Q4 Did you work outside of education before becoming a teacher?

1. No
2. Yes

Display This Question:

If Work Outside Ed = Yes

Q5 How many years did you work outside of education?

1. 0 – 3 Years
2. 4 – 10 Years
3. 11 -20 Years
4. Over 20 Years

Q6 What degree or degrees do you hold? (check all that apply):

1. B.A./B.S.
2. M.A./M.S./M.B.A.
3. Post-graduate certification (Ed.S., etc.)
4. Post-graduate degree (Ph.D., Ed.D., J.D.)

Q7 What was your major in college? (If you double-majored, check all that apply)

1. English
2. History
3. Social Science (Psychology, Anthropology, Sociology, etc.)
4. Science (Biology, Chemistry, Physics, Zoology, etc.)
5. Business
6. Fine Arts
7. Mathematics

8. Engineering
9. World Language
10. Other (Please list below) _____

Q8 What was your minor in college? (If you double-minored, check all that apply)

1. English
2. History
3. Social Science (Psychology, Anthropology, Sociology, etc.)
4. Science (Biology, Chemistry, Physics, Zoology, etc.)
5. Business
6. Fine Arts
7. Mathematics
8. Engineering
9. World Language
10. Other (Please list below)_____

Q9 What job experiences have you had outside of school? (check all that apply)

1. Sales
2. Food Industry
3. Employee Development/Professional Learning/Professional Development
4. Hospitality
5. Construction
6. Business
7. Science Industry
8. Manufacturing

9. Career Technology/Technology
10. Other (Please List)_____

Q10 What pathway did you take (or are you taking) toward teacher certification?

1. Traditional (I have a bachelor's degree in teaching/education)
2. Alternative (I have a degree in the content I am teaching, such as history, and some educational preparation, but do not have a bachelor's degree in teaching/education)
3. Emergency (I have little to no background in education/teaching, OR I am pursuing formal certification while I am teaching full-time).

Q11 What grade level are you presently teaching? (Click all that apply)

1. Elementary school (K-5 or 6)
2. Middle School (6, 7, and/or 8)
3. High School (9 - 12)

Q12 What content do you teach? (Please check all that apply)

1. English
2. Math
3. Science
4. Social Studies
5. World Languages
6. Fine Arts
7. Career Tech
8. P.E. or Health
9. Athletics

Q13 What percent of students at your school qualify to receive free and reduced lunch?

1. 0-20%
2. 21-40%
3. 41-60%
4. 61-80%
5. 81-100%

Q14 Do you have children or care for a family member?

1. Yes
2. No

Appendix 4: Survey Questions

Ten-Item Personality Inventory-(TIPI)

Here are several personality traits that may or may not apply to you. Please indicate the extent to which the pair of traits applies to you, even if one characteristic applies more strongly than the other**.**

	1 Disagree strongly	2 Disagree moderately	3 Disagree a little	4 Neither agree nor disagree	5 Agree a little	6 Agree moderately	7 Agree strongly
1. Extroverted, Enthusiastic	○	○	○	○	○	○	○
2. Critical, Quarrelsome	○	○	○	○	○	○	○
3. Dependable, Self-disciplined	○	○	○	○	○	○	○
4. Anxious, Easily upset	○	○	○	○	○	○	○
5. Open to new experiences, Complex	○	○	○	○	○	○	○
6. Quiet, Reserved	○	○	○	○	○	○	○
7. Sympathetic, Warm	○	○	○	○	○	○	○
8. Disorganized, Careless	○	○	○	○	○	○	○
9. Calm, Emotionally stable	○	○	○	○	○	○	○
10. Conventional, Uncreative	○	○	○	○	○	○	○

Big 5 (Called the Ten Item Personality Measure. (TIPI) (Gosling, Rentfrow. & Swann, 2003): https://gosling.psy.utexas.edu/scales-weve-developed/ten-item-personality-measure-tipi/.

Grit

Here are a number of statements that may or may not apply to you. There are no right or wrong answers, so just answer honestly, considering how you compare to most people. Grit measures passion and perseverance in pursuing long-term goals

	1 Very much like me	2 Mostly like me	3 Somewhat like me	4 Not much like me	5 Not like me at all

1. New ideas and projects sometimes distract me from previous ones.	○	○	○	○	○
2. Setbacks don't discourage me.	○	○	○	○	○
3. I have been obsessed with a certain idea or project for a short time but later lost interest.	○	○	○	○	○
4. I am a hard worker.	○	○	○	○	○
5. I often set a goal but later choose to pursue a different one.	○	○	○	○	○
6. I have difficulty maintaining my focus on projects that take more than a few months to complete.	○	○	○	○	○
7. I finish whatever I begin.	○	○	○	○	○
8. I am diligent.	○	○	○	○	○

(Duckworth & Seligman, 2007). (Scoring information: https://sjdm.org/dmidi/files/Grit-8-item.pdf).

Teacher Self-efficacy

Please indicate your opinion about each of the questions below by marking any one of the nine responses in the columns on the right side, ranging from (1) "None at all" to (9) "A Great Deal," as each represents a degree on the continuum. Please respond to each of the questions by considering the combination of your current ability, resources, and opportunity to do each of the following in your present position.

	1 None at all	2	3 Very Little	4	5 Some Disagree	6	7 Quite a Bit	8	9 Great Deal
1. I am able to control disruptive behavior in the classroom.	○	○	○	○	○	○	○	○	○
2. How much can you do to motivate students who show low interest in schoolwork?	○	○	○	○	○	○	○	○	○
3. How much can you do to calm a student who is disruptive or noisy?	○	○	○	○	○	○	○	○	○
4. How much can you do to help your students value learning?	○	○	○	○	○	○	○	○	○
5. To what extent can you craft good questions for your students?	○	○	○	○	○	○	○	○	○

6. How much can you do to get students to follow classroom rules?	○	○	○	○	○	○	○	○	○
7. How much can you do to get students to believe they can do well in schoolwork?	○	○	○	○	○	○	○	○	○
8. How well can you establish a classroom management system with each group of students?	○	○	○	○	○	○	○	○	○
9. To what extent can you use a variety of assessment strategies?	○	○	○	○	○	○	○	○	○
10. To what extent can you provide an alternative explanation or example when students are confused?	○	○	○	○	○	○	○	○	○
11. How much can you assist families in helping their children do well in school?	○	○	○	○	○	○	○	○	○
12. How well can you implement alternative teaching strategies in your classroom?	○	○	○	○	○	○	○	○	○

(Tschannen-Moran & Hoy, 2001)
Teachers' Sense of Efficacy Scale1 (short form): https://bpb-us-w2.wpmucdn.com/u.osu.edu/dist/2/5604/files/2018/04/TSES-scoring-zted8m-1s63pv8.pdf.

Teacher Self-efficacy: How do you feel about your job

Please indicate your opinion about each of the questions below by marking any one of the nine responses in the columns on the right side, ranging from (1) "None at all" to (9) "A Great Deal," as each represents a degree on the continuum. Please respond to each of the questions by considering the combination of your current ability, resources, and opportunity to do each of the following in your present position.

	1 None at all	2	3 Very Little	4	5 Some Disagree	6	7 Quite a Bit	8	9 Great Deal

1. I am able to control disruptive behavior in the classroom.	○	○	○	○	○	○	○	○	○
2. How much can you do to motivate students who show low interest in schoolwork?	○	○	○	○	○	○	○	○	○
3. How much can you do to calm a student who is disruptive or noisy?	○	○	○	○	○	○	○	○	○
4. How much can you do to help your students value learning?	○	○	○	○	○	○	○	○	○
5. To what extent can you craft good questions for your students?	○	○	○	○	○	○	○	○	○
6. How much can you do to get students to follow classroom rules?	○	○	○	○	○	○	○	○	○
7. How much can you do to get students to believe they can do well in schoolwork?	○	○	○	○	○	○	○	○	○
8. How well can you establish a classroom management system with each group of students?	○	○	○	○	○	○	○	○	○
9. To what extent can you use a variety of assessment strategies?	○	○	○	○	○	○	○	○	○
10. To what extent can you provide an alternative explanation or example when students are confused?	○	○	○	○	○	○	○	○	○
11. How much can you assist families in helping their children do well in school?	○	○	○	○	○	○	○	○	○

12. How well can you implement alternative teaching strategies in your classroom?	○	○	○	○	○	○	○	○	○

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, pp. 84, 191-215.

FIT-Choice Questions

Section 1: Why did you become a teacher? For each statement below, please rate how important it was in YOUR decision to become a teacher, from 1 (not at all important in your decision) to 7 (extremely important in your decision). Please check the box that best describes your agreement for each.

	1 Not at all important	2	3 Moderately important	4	5 Important	6	7 Extremely Important
1. Part-time teaching could allow more family time.	○	○	○	○	○	○	○
2. My friends think I should become a teacher.	○	○	○	○	○	○	○
3. As a teacher, I will have lengthy holidays.	○	○	○	○	○	○	○
4. I have the qualities of a good teacher.	○	○	○	○	○	○	○
5. Teaching allows me to provide a service to society.	○	○	○	○	○	○	○
6. I've always wanted to be a teacher.	○	○	○	○	○	○	○
7. Teaching will be a useful job for me to have when traveling.	○	○	○	○	○	○	○
8. I want summers off.	○	○	○	○	○	○	○
9. I was unsure of what career I wanted.	○	○	○	○	○	○	○
10. I want a job that involves working with children & adolescents.	○	○	○	○	○	○	○
11. Teaching will offer a steady career path.	○	○	○	○	○	○	○
12. Teaching hours will fit with the responsibilities of having a family.	○	○	○	○	○	○	○
13. I have had inspirational teachers	○	○	○	○	○	○	○

14. As a teacher, I will have a short working day.	○	○	○	○	○	○	○
15. I like the subject I am teaching,	○	○	○	○	○	○	○
16. Teachers make a worthwhile social contribution.	○	○	○	○	○	○	○
17. A teaching qualification is recognized everywhere.	○	○	○	○	○	○	○
18. Teaching will allow me to influence the next generation.	○	○	○	○	○	○	○
19. My family thinks I should become a teacher.	○	○	○	○	○	○	○
20. Teaching will provide a reliable income.	○	○	○	○	○	○	○
21. I was not accepted into my first-choice career.	○	○	○	○	○	○	○
22. Teaching will allow me to raise the ambitions of underprivileged youth.	○	○	○	○	○	○	○
23. Teaching is a secure job.	○	○	○	○	○	○	○
24. I have had positive learning experiences.	○	○	○	○	○	○	○
25. People I've worked with think I should become a teacher.	○	○	○	○	○	○	○
26. Teaching is a career suited to my ambitions.	○	○	○	○	○	○	○
27. A teaching job will allow me to choose where I wish to live.	○	○	○	○	○	○	○
28. I chose teaching as a last-resort career.	○	○	○	○	○	○	○
29. Teaching will allow me to benefit the socially disadvantaged.	○	○	○	○	○	○	○

Section 2: Job Satisfaction

How do you feel about your job? We would like to know how you generally feel about your job. How strongly do you agree or disagree with the following statements? Please mark one choice in each row.

	1 Strongly disagree	2 Somewhat disagree	3 Somewhat agree	4 Strongly agree
1. The advantages of being a teacher clearly outweigh the disadvantages.	○	○	○	○
2. If I could decide again, I would still choose to work as a teacher.	○	○	○	○
3. I would like to change to another school if that were possible.	○	○	○	○
4. I regret that I decided to become a teacher.	○	○	○	○
5. I enjoy working at this school.	○	○	○	○
6. I wonder whether it would have been better to choose another profession.	○	○	○	○
7. I would recommend this school as a good place to work.	○	○	○	○
8. I think that the teaching profession is valued in society.	○	○	○	○
9. I am satisfied with my performance in this school.	○	○	○	○
10. All in all, I am satisfied with my job.	○	○	○	○
11. I think that teachers are valued by society.	○	○	○	○
12. Teaching is extremely difficult work.	○	○	○	○
13. I may return teaching year but I am not that happy in my job.	○	○	○	○
14. I will not return to teaching next year.	○	○	○	○

15. I am happy with my decision to become a teacher.	○	○	○	○

Section 3: Knowledge of Teaching

Please tell us how confident you feel about your teaching.

	2 Not Confident	2 Somewhat Confident	3 Confident	4 Highly Confident
1. I am able to write meaningful lesson plans.	○	○	○	○
2. I am able to manage my students.	○	○	○	○
3. I make regular calls to my students' parents.	○	○	○	○
4. I have people at school that will help me when I have difficulties.	○	○	○	○
5. I started the year very prepared for the rigors of teaching.	○	○	○	○
6. I am skilled at meeting the needs of all students.	○	○	○	○
7. I have a collaborative school team that plans with me.	○	○	○	○
8. I know where to go if I need help.	○	○	○	○
9. I have good relationships with my students.	○	○	○	○
10. I am confident in meeting the needs of remedial learners.	○	○	○	○

Permission granted by H. M. G. Watt and P. W. Richardson.
Richardson, P W., & Watt, H M. G. (2006). Who chooses teaching and why? Profiling characteristics and motivations across three Australian universities. *Asian-Pacific Journal of Teacher Education*, 34(1), 27–56.)

Cognitive Reflection Test

Please provide your numerical answers to the questions below.

Q1 A bat and a ball cost $1.10 in total. The bat costs $1.00 more than the ball. How much does

the ball cost?

_____ cents

Q2 If it takes 5 machines 5 minutes to make 5 widgets, how long would it take 100 machines to make 100 widgets?

_____ minutes

Q3 In a lake, there is a patch of lily pads. Every day, the patch doubles in size. If it takes 48 days for the patch to cover the entire lake, how long would it take for the patch to cover half of the lake?

_____ days

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