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Alternate Route - An Examination of Alternatively Certified Teachers' Job Satisfaction and Self-Efficacy

Adrienne W. McElroy

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Alternate Route: An Examination of Alternatively Certified Teachers'
Job Satisfaction and Self-Efficacy

by
Adrienne McElroy

An Applied Dissertation Submitted to the
Abraham S. Fischler College of Education
and School of Criminal Justice in Partial
Fulfillment of the Requirements for the
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Approval Page

This applied dissertation was submitted by Adrienne McElroy under the direction of the persons listed below. It was submitted to the Abraham S. Fischler College of Education and School of Criminal Justice and approved in partial fulfillment of the requirements for the degree of Doctor of Education at Nova Southeastern University.

Susanne Flannelly, EdD
Committee Chair

Audrey Henry, EdD
Committee Member

Kimberly Durham, PsyD
Dean

Statement of Original Work

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Adrienne McElroy

Name

December 2, 2019

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Abstract

Alternate Route: An Examination of Alternatively Certified Teachers' Job Satisfaction and Self-Efficacy. Adrienne McElroy, 2019: Applied Dissertation, Nova Southeastern University, Abraham S. Fischler College of Education and School of Criminal Justice. Keywords: alternative certification teachers, job satisfaction, self-efficacy, recruitment, retention

This applied dissertation was designed to examine the job satisfaction and self-efficacy of alternatively certified teachers in a rural, midsize, public school district in Florida. The examination will include the relationship between job satisfaction and self-efficacy. The results of this study aim to provide school officials with a better understanding of the role alternatively certified teachers fill during the teacher shortage facing our nation.

The researcher utilized two existing surveys. The Job Satisfaction Survey (JSS) was developed by Paul Spector. The JSS further delineates job satisfaction into two subscales: intrinsic and extrinsic job satisfaction. The Teachers' Sense of Efficacy Scale (TSES) was adapted by Tschannen-Moran and Woolfolk-Hoy (2001). The TSES has three subscales: Efficacy in Student Engagement, Efficacy in Instructional Strategies, and Efficacy in Classroom Management. Correlations will occur between the dependent and independent variables. The survey was sent electronically to two-hundred and thirty alternatively certified teachers and one hundred and fifteen responded.

An analysis of the data revealed higher levels of total job satisfaction, higher levels of intrinsic job satisfaction and lower levels of extrinsic job satisfaction for the sample as opposed to the JSS norms. Additionally, the levels of total self-efficacy and the self-efficacy subscales of management and instruction were higher than the TSES norms. Finally, the correlational analysis revealed moderately strong positive correlations between total self-efficacy, engagement self-efficacy, and management self-efficacy with total and intrinsic job satisfaction. Weak positive correlations were found between total and management self-efficacy with extrinsic job satisfaction. No correlation was found between the self-efficacy subscale of instruction and total, intrinsic, or extrinsic job satisfaction.

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Chapter 1: Introduction

Statement of the Problem

An analysis of national databases revealed nationally there were 109,000 uncertified classroom teachers during the 2018-2019 school year (Sutcher, Darling-Hammond, and Carver-Thomas, 2019). Although Florida does not report the number of uncertified teachers in classrooms, the Learning Policy Institute reported during the 2017-2018 school year there were 6,628 unfilled vacancies in Florida alone (Sutcher et al., 2019). A shortage of teachers has been a concern as far back as 1557 when English knight, Sir Thomas Elyot wrote about the inadequate education of the noblemen due to the lack of sufficient masters or teachers (Behrstock-Sherratt, 2016). Teacher shortages are a complex problem with many attributing indicators that are often portrayed in a general manner and sensationalized by the media (Cowan, Goldhaber, Hayes, & Theobald, 2016). The National Center for Education Statistics (Hussar & Bailey, 2011) has predicted a six percent increase in enrollment in public and private schools in 2019. Across the nation, there is a shortage of teachers in specific subject areas within certain geographical areas (Berry & Shield, 2017). Specifically, the Florida Department of Education (2018) reports critical shortage areas in Science, English, English for Speakers of Other Languages (ESOL), Exceptional Student Education (ESE), Mathematics, and Reading. According to Wronowski (2017), enrollment in college teacher preparation programs has been declining since 2008. Given these statistics, school districts will need to be creative in teacher recruitment and retention efforts. Bos and Gerdeman (2017) and Morettini (2014) found that alternatively certified teachers have similar effectiveness as traditionally certified teachers when hired to fill teacher shortages. In 2013, it was

reported that two-fifths of the teachers entered through alternative routes (Clark, McConnell, Constantine, & Chiang, 2013). More recently, the Education Commission of the United States reported that 20% of all new teachers hired in 2016 entered via an alternate route (Rowland-Woods, 2016). Teachers who earned their certification via an alternate route have increased the pool of teacher applicants since the inception in the 1980s (Elliot, Isaacs, & Chugani, 2010). Therefore the problem addressed in this dissertation is the lack of available traditionally certificated teachers resulting in a need to research factors influencing the self-efficacy and job satisfaction of alternatively certified teachers and contribute to the literature aimed to improve teacher recruitment and retention.

The topic. The teacher shortage has increased recruitment and retention practices within the K-12 education profession, particularly alternative certification programs (Evans, 2015). Identifying the factors that are essential to self-efficacy and job satisfaction of teachers can improve recruitment and retention practices (Bangerjee, Stearns, Moller, & Mickelson, 2017; Aziz & Quraishi, 2017). In addition, understanding the job satisfaction of teachers can have long reaching effects toward reducing teacher attrition rates (Kitchel et al., 2012). According to Chamundeswari (2013) it is imperative that school leaders do everything possible to ensure job satisfaction of alternatively certified teachers and traditionally certified teachers alike since teachers are the main influence on a students' educational experience making teacher job satisfaction a vital factor.

The research problem. The recent decrease of students entering teacher preparatory programs has resulted in a need to hire and recruit alternatively certified

teachers. Determining the self-efficacy and job satisfaction of existing alternatively certified teachers and the factors that influence job satisfaction would contribute to the existing literature toward providing solutions to teacher recruitment and reduce teacher attrition.

Background and justification. Alternative teacher certification programs have been on the rise since the 1980s (Elliot et al., 2010). Teachers entering the profession without completing the traditional teacher preparation program from a college or university are considered to be alternatively certified (Clark et al., 2013). In an effort to combat the teacher shortage, twelve states enacted legislation in 2017 allowing alternative routes to teacher preparation and licensure (Aragon, 2018). Recruiting alternatively certified teachers can reduce the teacher shortage facing our nation while maintaining student achievement (Clark et al., 2013).

High teacher attrition rates impact the teacher shortage (Berry & Shields, 2017). School district leaders must seek the right teachers regardless of their certification path (Clark et al., 2013). Elliot et al. (2010) found that alternatively certified teachers require differentiated training and mentoring. In 2018, a policy analyst at the Education Commission of the States shared that according to the national labor market data, efforts to address teacher shortages need to be less about general teacher recruitment and more about focused recruiting and retaining of the right teachers for specific subjects and schools (Aragon, 2018). Efforts to recruit, hire, and train teachers are costly to districts. Feng and Sass (2017) found the monetary impact is between \$4,000 and \$17,000 per hire, but the benefit to student achievement far outweighs the monetary impact. Also, American Institute for Research identifies alternatively certified teachers as a vital source

of potential candidates for consideration to grow a district's pool of applicants (Bos & Gerdeman, 2017).

Deficiencies in the evidence. Nationally, the most common recruitment practice aimed toward reducing the teacher shortage has been to identify people who have high academic achievement or cognitive ability as determined by standardized exam scores such as Scholastic Assessment Test (SAT) which has provided mixed results (Wronowski, 2017). Much of the past research indicates a need for additional research to be conducted in the area of teacher shortage. For example, Elliot et al. (2010) noted more research is needed to determine the impact attributes such as self-efficacy has played in the attrition rates of alternatively certified teachers. In addition, Troesch and Bauer (2017) and Morettini (2014) found second career teachers to have high self-efficacy, but advocated that further research should be conducted in regards to alternate certification teachers since not all second career teachers are alternatively certified. Karabiyik and Korumaz (2014) found a significant correlation between job satisfaction and self-efficacy but indicated there is a need for further research across all settings.

Audience. Future research conducted toward increasing the pool of teachers to reduce the teacher shortage can and is currently being used by all educational stakeholders. Educational policy makers can use the research to make informed local policy decisions. School district leadership can use the research findings about alternatively certified teachers for future recruitment efforts. Universities and teacher preparation programs would use the research by advising their potential candidates of the desirable characteristics of effective alternatively certified teachers. Policy decisions regarding hiring practices and curriculum decisions within an area affect the students and

their academic achievement. Students would benefit from having an effective teacher regardless of their certification path.

Setting of the Study

This study occurred in a rural, midsize, public school district in southwest Florida. The school district encompasses ten elementary schools, four middle schools, three high schools, four center schools, one charter school, and one virtual school program. There were approximately 180,000 students enrolled in the district and approximately 900 certified teachers.

Researcher's Role

The researcher was the Director of Human Resources employed within the district. The researcher was pursuing a Doctor of Education in Educational Leadership and earned a Master of Education in Educational Leadership and Bachelor of Science in Elementary Education. Educational Leadership (all levels) and Elementary Education (K-6) certifications were held by the researcher in addition to English as a Second Language (ESOL) and Reading (K-12) endorsements.

Purpose of the Study

The purpose of this study was to examine the job satisfaction and self-efficacy of alternatively certified teachers in a rural, midsize, public school district in Florida. The examination included the relationship between job satisfaction and self-efficacy. The results of this study will provide school officials with a better understanding of the role alternatively certified teachers fill during the teacher shortage facing our nation.

In order for schools to achieve high student achievement, students need teachers who will build their self-efficacy and teachers need principals who will build their self-

efficacy (Evans, 2015). According to Berry and Shields (2017), this is a hard goal to obtain when less people are entering teacher preparation programs and teachers are leaving the profession at high rates. Troesch and Bauer (2017) found that second career teachers have a higher self-efficacy. Furthermore, higher self-efficacy is correlated to higher job satisfaction (Queyrel-Bryan, 2017; Woesterman & Wasonga, 2015; Youngs, Pogodzinski, Grogan, & Perrone 2015). In addition, alternatively certified teachers are an attractive population to retain and recruit. Limited available research on alternatively certified teachers' job satisfaction or what causes them to leave or stay in the profession makes this study unique and fills a gap in further research (Morettini, 2014; Queyrel-Bryan, 2017; Troesch & Bauer, 2017).

Definition of Terms

The following terms are defined for clarity and standardization for the purpose of this study:

Alternatively Certified Teacher. An alternatively certified teacher is a teacher who was not trained in a traditional teacher preparatory program but sought certification through State Department of Education. Retrieved from <http://www.fldoe.org/teaching/certification/pathways-routes/#educator>

Attrition. Attrition is a reduction in numbers usually as a result of resignation, retirement, or death. In Merriam-Webster (11th ed.) Retrieved from <https://www.merriam-webster.com/dictionary/attrition>

Autonomy. Autonomy is the extent to which an employee is able to decide how to do his or her job (Spector, 2011).

Basic Needs. Basic needs refers to Maslow identified five basic needs to

motivation based in order of importance: physiological, safety, love, esteem, self-actualization (Lundenburg & Oreinstein, 2012).

Collective Teacher Efficacy. Collective efficacy refers to a school staff's shared belief that through their collective action, they can positively influence student outcomes (Herzberg, 1959).

Contingent Rewards. Contingent rewards are rewards that depend on a response (Herzberg, 1959).

Facet. A facet is any of the definable aspects that make up a subject. In Merriam-Webster (11th ed.) Retrieved from <https://www.merriam-webster.com/dictionary/facet>

Fringe Benefits. Fringe benefits are an extra benefit supplementing an employee's salary, for example, a company car, subsidized meals, health insurance, etc. (Herzberg, 1959)

Hygiene Factors. Hygiene factors are content factors of job satisfaction that fulfill an individual's need for psychological growth (Lundenburg & Oreinstein, 2012, p. 84).

Intrinsic Factors. Intrinsic factors are the job factors that fall outside the nature of the work itself, such as pay and other rewards (Herzberg, 1959)

Job Dissatisfaction. Job dissatisfaction is an employee's negative attitude and feelings about aspects or features of the job (Spector, 2011).

Job Satisfaction. Job satisfaction is an employee's attitude and feelings about aspects or features of the job (Spector, 2011).

Motivation Factors. Motivation factors are content factors of job dissatisfiers that are preventable and environmental (Lundenburg & Oreinstein, 2012, p. 84).

Perception. Perception is the physical sensation interpreted in the light of experience. In Merriam-Webster (11th ed.). Retrieved from <https://www.merriam-webster.com/dictionary/perception>

Recruitment. Recruitment is the process of adding new individuals to a population or subpopulation. In Merriam-Webster (11th ed.). Retrieved from <https://www.merriam-webster.com/dictionary/recruitment>

Retention. Retention is the act of retaining or the state of being retained. In Merriam-Webster (11th ed.). Retrieved from <https://www.merriam-webster.com/dictionary/retention>

Self-Efficacy. Self-efficacy is an individual's belief in their innate ability to achieve goals (Bandura, 1977.)

Teacher Induction Program. A teacher induction program is an overall system of support which can include mentoring, curriculum, planning, and professional development (Potemski & Matlach, 2014).

Traditionally Certified Teacher. A traditionally certified teacher is a teacher who was trained in a college or university teacher preparation program. Retrieved from <http://www.fldoe.org/teaching/certification/pathways-routes/#educator>

Well-Being. Well-being is the state of being happy, healthy, or prosperous. In Merriam-Webster (11th ed.). Retrieved from <https://www.merriam-webster.com/dictionary/well-being>

Chapter 2: Literature Review

Teacher shortages are a complex problem with many attributing indicators that are referred to in a broad sense (Cowan et al., 2016). Behstock-Sherratt (2016) contemplate that the supply and demand of teachers is in conflict, especially since student enrollment is rising in public schools yet, student enrollment into college teacher preparation programs is declining. Alternative certification routes were established as a means to help solve this supply and demand problem and continue to evolve today (Elliott, Isaacs, & Chugaini, 2010). Retention and recruitment efforts to mitigate the teacher shortage are impacted by the teacher self-efficacy levels, teacher job satisfaction levels, and the professional practices implemented within an organization (Owens-Houck, 2018).

Theoretical Framework

The framework for this study was based on two theoretical foundations: Herzberg's Two-Factor Theory of Motivation (1959) and Bandura's Self-Efficacy Theory (1977). Teacher self-efficacy levels and job satisfaction factors contribute to the retention and recruitment practices of the education profession. Job satisfaction is a huge contributor to teacher attrition (Nagar, 2012). The teacher shortage can be felt by all, thus making increasing teacher self-efficacy and job satisfaction a critical research area of alternatively certified teachers (Bos & Gerdeman, 2017; Morettini, 2014; Redding & Henry, 2018; Troesch & Bauer, 2017).

Bandura's Self-efficacy Theory (1977). Teacher self-efficacy is an important determinant of success (Bandura, 1986) more so than content and pedagogical content (Evans, 2015). Covey's (2004) work regarding the habits of highly effective people

depicts character and competence as the driving force of an organization. Character is who we are which includes our self-efficacy while competence is what we do and Covey (2004) states it is much easier to train competence than character. Teaching is a difficult profession due to high stakes testing, accountability, reduced funding and increased mandates (Walker, 2014). A profession that encompasses performance based outcomes, such as education, requires perseverance that can be found in people with strong self-efficacy (Blair & Lowe, 2018). Evans (2015) suggests these strategies for new teachers regardless of their path to teaching: develop relationships, hold high expectations for all, maintain high self-efficacy for self and students, emphasize conceptual understanding, demonstrate passion for learning, practice effective classroom management, practice questioning techniques, and encourage intrinsic motivation.

Bandura defines self-efficacy as the degree to which a person perceives his or her ability to produce an outcome (1977, 1997). Bandura's research found that a person must believe he or she can demonstrate a behavior or the behavioral action in order to make a difference toward the anticipated outcome (1977, 1997). People will do hard things if they believe they can (Bandura, 1977, 1997). The certainty of success is greater if a person has the skill, incentive, and self-efficacy (Bandura, 1977, 1997). The human ability to regulate self-behavior can be a blessing or a detriment depending on the individual's level of self-efficacy (Bandura, 1997).

Bandura's Self-Efficacy Theory (1977, 1997) is based on four sources of efficacy expectations: performance accomplishments, vicarious experience, verbal persuasion, and emotional arousal. Sources of successful and unsuccessful performance accomplishments throughout life add to one's sense of self-efficacy (Bandura, 1977, 1997). Watching other

people either have positive or negative experiences is another source of self-efficacy defined by Bandura as vicarious experience (1977, 1997). Bandura depicts verbal persuasion, the act of being led through verbal suggestion, as the weaker of the efficacy expectations but can be increased with the use of performance aids (1977, 1997). The final efficacy expectation source is emotional arousal, positive or negative, which can be motivational and informative to a person's level of self-efficacy (Bandura, 1977, 1997).

Bandura (1997) specifically references the education profession in his more recent research. Education is multifaceted within the research, including student self-efficacy, teacher self-efficacy, collective school efficacy, and collective instructional efficacy (Bandura, 1997). A teacher's belief in his or her self-efficacy will impact his or her outlook on the profession, affect the way he or she structures lessons, and influence his or her willingness to integrate educational technologies (Bandura, 1997). Teachers work within an organization that requires the collaboration of all within the organization. An efficacious school can be attained when all the school stakeholders are working toward ways to improve instruction through collective efficacy (Bandura, 1997).

Herzberg's Two-Factor Motivation Theory (1959). Herzberg (1959) developed a two-factor theory of motivation extending the work of Maslow (1943, 2012). Maslow's Need Hierarchy consists of five levels of need with the first being the most important (a) physiological, (b) safety, (c) social, (d) esteem, and (e) self-actualization. Maslow's Need Hierarchy is a well-known theory for studying motivation in organizations (Lundenburg & Ornstein (2012). The Two-Factor Motivation Theory outlines factors that cause or prevent job satisfaction and job dissatisfaction. The set of factors leading to job dissatisfaction Herzberg (1959) called hygiene factors or extrinsic factors which are

related to Maslow's lower level needs of physiological, safety, and social. The hygiene factors typically involve the job environment such as the physical building, policies, supervision, interpersonal relations, working conditions, and salary. The set of factors leading to job satisfaction that Herzberg (1959) called motivation factors or intrinsic factors are related to the Maslow's hierarchy needs of esteem and self-actualization. The motivation factors typically involve the job composition including achievement, recognition, the actual work, responsibility, and advancement opportunities. Herzberg places the most importance on the motivation factors which will contribute to superior performance (Lundenburg & Ornstein, 2012). Herzberg (1959) proposed that hygiene factors were neutral unless they were not present which would lead to job dissatisfaction thus making hygiene factors and motivation factors interdependent upon each other.

Alternate Certification

Even though the alternative certification routes date back to the 1980s, schools are reticent to hire an alternatively certified teacher when a traditionally certified teacher is available even with research substantiating that they are equally as effective (Clark et al., 2013). Redding and Smith (2016) found that alternatively certified teachers are worth the risk even with their lack of collegiate preservice training. In the early 1980s, the lack of enrollment in college preparatory programs caused states to look at the teacher shortage from a different perspective and consider how to enable teachers to teach without the certification; thus the alternative certification process was born replacing emergency certification protocols (Feistritzer, 2006). In 1983, the National Center for Education Information (NCEI) began gathering information on alternatives to the traditional college teacher education program route and found only eight states implementing an alternative

teacher certification (Feistritzer, 2006). The No Child Left Behind Act in 2002 required that all teachers be highly qualified to teach which further exasperated the teacher shortage by putting additional requirements on the certification process (USDOE, 2004). Consequently, the U.S. Department of Education utilized a discretionary grant to form the National Center for Alternative Certification (NCAC) in 2003 as a central location for all pertinent information. Posey (2016) reported the intense lobbying and legislative efforts during this transition time that resulted in the loan forgiveness programs, stipends for National Board certification, teacher induction programs, emergency style temporary certification, increased pay, and professionalization of the teaching profession. NCAC reports that as of 2006 almost all states have at least one type of alternate route to teacher certification (Feistritzer, 2006). Even considering all of these provisions, the teacher shortage still prevailed, therefore in 2017 states began enacting legislation to provide alternatives and exceptions to the existing stringent state licensure requirements particularly in hard-to-staff subjects and schools (Aragon, 2018).

Process for Alternative Certification in Florida. Due to the location of the research, the next section outlines the process for obtaining a teaching certificate in the State of Florida. Florida Department of Education (FLDOE) launched an online educator certification system in November 2017 in an effort to provide a timely, accurate, and efficient process. The Bureau of Educator Certification of the Florida Department of Education issues either a Temporary Certificate or a Professional Certificate. The minimum requirement for either is a bachelor's degree and proficiency in the subject area you plan to teach. A Professional Certificate is earned by meeting one of the following requirements: (a) valid Standard Certificate issued by another State, (b) valid certificate

issued by the National Board for Professional Teaching Standards (NBPTS), (c) teacher education degree program with a passing score on the Florida Certification Examinations, (d) Educator Preparation Institute (EPI) Program with a passing score on Florida Certification Examinations, and (e) two semesters of full-time college teaching experience with passing scores on the Florida Professional Education Test and the Florida Subject Area Examination. Individuals seeking certification who do not currently meet all requirements above, can qualify for the temporary certificate with one of these pathways: (a) bachelor's degree with a passing score on the Florida Subject Area Examination, (b) bachelor's degree with a valid certificate issued by American Board for Certification of Teacher Excellence (ABCTE), (c) bachelor's degree with a major in the content area, and (d) bachelor's degree with required courses with a 2.5 GPA.

A Florida temporary certificate is valid for three years, after which time the applicant will need to still meet the professional certificate requirements by earning one of the following: (a) valid certificate issued by (ABCTE) with demonstration of professional education competence in the classroom (b) complete Florida Professional Development Certification Program with a passing score on the Florida Certification Examinations (c) complete College Professional Training Option, teaching experience, demonstration of professional education competence in the classroom, and passing the Florida Certification Examinations, (d) completing professional preparation college courses, teaching experience, demonstration of professional education competence in the classroom, and passing Florida Certification Examinations. Additionally, STEM fields are in high demand and have slightly different requirements for earning a professional certificate which are as follows: (a) earn a graduate degree in a STEM Field (b) teach an

approved STEM high school course (c) hold 6-12 STEM Certification, (d) demonstrate highly effective summative rating based on student performance on Advanced Placement (AP), International Baccalaureate (IB), Advanced International Certificate of Education (AICE), or End of Course (EOC) Assessments, and (e) earn a passing score on Florida Certification Examinations.

Florida professional certification examinations have come under great scrutiny due to low pass rates (FASA, 2019). According to a longitudinal study conducted by FLDOE (2019), during the years 2015-2018 pass rates did not improve over time and consistently were low. Subject area examinations pass rates were as low as 32% in middle grades. On the Florida General Knowledge exam about 60% of students passed during the study period (FLDOE, 2019). Given the teacher shortage in Florida, the Florida Association of School Administrators (FASA) stated their organizations' 2019 priority is teacher certification (FASA, 2019). Additionally, the Florida Senate has outlined their priorities for 2019 to include teacher certification and Florida House Representative Donalds proposed House Bill 7061 offering alternatives to the General Knowledge Examination (FASA, 2019). In alignment with the legislative initiatives, Aragon (2018) encourages more strategies toward recruiting and retaining the right teachers instead of just general recruiting for addressing the teacher shortage. FASA (2019) advocates the need to recruit teachers from alternative pathways and retain those teachers, therefore not increasing the shortage that already exists.

Teacher Self-Efficacy

Student achievement is the overarching goal of education. Self-efficacy is needed for both teachers and students in order to achieve collective efficacy of the school as

determined by student achievement (Bandura, 1986). Teachers who believe they are good teachers engage students in deeper learning (Evans, 2015) and students need teachers who build their confidence in their ability to learn (Bandura, 1997). Bandura (1997) found that the success or failure of a teacher and his/her students is determined by the teacher's belief in their instructional efficacy. Teachers' beliefs in their efficacy affect every aspect of teaching including receptivity to new innovations, the teaching profession and, determining future commitment to the profession (Bandura, 1997).

The identification of self-efficacy levels and job satisfaction factors can help mitigate the teacher shortage by improving teacher recruitment and retention efforts (Elliott et al., 2010). Teacher self-efficacy is impacted by the educational challenges present in today's schools such as practices of inclusion of students with disabilities and students with limited English proficiency, and principal influences (Gaines, 2017; Negrin, 2014). School must implement researched professional practices such as developing a professional community and promoting teacher collaboration that support and develop teachers' self-efficacy (Bangerjee et al., 2017; Gaines, 2017; Negrin, 2014; Owens-Houck, 2018; Poulou, Reddy, & Dudek, 2018; Queyrel-Bryan, 2017). Increasing teacher self-efficacy can increase student achievement (Aziz & Quraishi, 2017). Koedel, Li Springer, and Tan (2017) found a causal relationship between job satisfaction and performance ratings; to illustrate, when a teacher impacts students in a positive manner and increases their achievement, performance ratings are often positive. Alternatively certified teachers' success relies on their ability to learn on the job (Redding & Smith, 2016). Tailored and flexible mentorship programs that will provide vicarious learning experiences that promote job satisfaction will reduce teacher attrition (Boxtel, 2017; Ford

Van Sickle, & Clark, 2017; LoCascio, Smeaton, & Waters, 2016; McMillan et al., 2014; Morettini, 2014; Skaalvik & Skaalvik, 2016).

Studies on demographic data and self-efficacy. Three recent international research studies on demographic data and self-efficacy present interesting findings. Aziz and Quraishi (2017), Kass (2015), and Wang'eri, Tumuti, and Otanga (2014) realized after inconclusive evidence that gender plays a significant role in teachers' self-efficacy mostly due to females being the dominant gender in education. Aziz and Quraishi (2017) found there was no significant difference between the self-efficacy of the male and female teachers but they found professional qualifications strengthened self-efficacy. In addition, Kass (2015) found that low self-efficacy was present in female teachers in Israel stemming from the family dynamics such as absent father, the relationship with the mother, or the home practice silencing of the female voice. Wang'eri et al. (2014) found that teaching holds a more personal meaning to females through their connection with students as a source of their self-efficacy. In addition, the United States is a fusion of many cultures coming together as one, therefore educational leaders should be aware of cultural gender differences in their teachers as they are in their students (Thurman, 2019). Aziz and Quraishi (2017), Kass (2015), and Wang'eri et al. (2014) recommend increasing teachers' self-efficacy by supporting their professional growth, reinforcing their self-efficacy by improving interpersonal relationships and communication.

Prior experience is an important demographic variable affecting self-efficacy to consider in conjunction with existing research (Troesch & Bauer, 2017; Britton, 2013). The influx of alternatively certified teachers to education has been on the rise since the 1980s (Elliott et al., 2010). Some assumptions of risk are associated with hiring

alternatively certified teachers such as lack of content knowledge, lack of preparation to work with students of diverse populations, and lack of best practices knowledge (Elliott et al., 2010; Britton, 2013). Contradictory to those assumptions is the Social Learning Theory (Bandura, 1986) which suggests individuals with self-efficacy are more likely to be resilient in adverse conditions. Hiring and retaining teachers can be more efficient if there is an understanding and development of teachers' self-efficacy (Elliott et al., 2010). Troesch and Bauer (2017) found that second career teachers have a higher self-efficacy which could be attributed to age or previous master experiences. Self-efficacy has been found to be heightened at the beginning of a new task (Bandura, 1977) which could be the reason alternatively certified teachers have higher self-efficacy as demonstrated in recent research (Troesch & Bauer, 2017).

In this era of accountability and high-stakes testing (Walker, 2014), a level of professional commitment must be maintained to persevere in the teaching profession. A character strength that teachers can possess is professional commitment which is a desire to stay and be involved in teaching as a profession (Ford et al., 2017). Teaching as a profession is unstable due to significant teacher dissatisfaction in the profession (Metlife, 2013), therefore requires self-efficacy. Demands for recruiting professionals from the fields of science, technology, engineering, and mathematics (STEM) has been intensified since 2001; however, researchers warn that recruitment from these fields requires school leaders to investigate their professional commitment to the demands placed on teachers (Morettini, 2014). A recent study in Louisiana by Ford et al. (2017) made connections between teachers' satisfaction in the profession, their professional commitment, and their self-efficacy. Furthermore, Ford et al. (2017), Morettini (2014), and Britton (2013)

suggest a need for school leaders to develop teachers' commitment by investing in their feelings of self-efficacy through supports such as intense mentoring, classroom management, and lesson planning to obtain higher student achievement.

Studies on professional practice and self-efficacy of teachers. There are many professional practices that impact the day-to-day profession of teaching such as inclusion of students with disabilities, students with limited English proficient (LEP), teachers' belief systems, and school leadership influence; which all require a teacher maintain high self-efficacy. Queyrel-Bryan (2017) found that following three professional practices impacted job satisfaction and the self-efficacy of teachers: meaningful professional development, classroom autonomy, and a belief they can make a difference.

The professional practice of participating in meaningful professional development is extremely important given the diverse needs of students in today's schools. Gaines (2017) conducted research on the attitudes and perceptions of teachers at inclusive settings which revealed a significant need for additional meaningful professional development regardless of years of teaching experience to boost the self-efficacy of teachers. In addition, Gaines (2017) discovered the need for professional development is usually associated with new teachers; however, Gaines suggests all teachers need professional development to combat teacher attrition rates. Meaningful professional development for teachers of LEP students has also been noted in research on teachers which found most of the teachers in the study felt self-efficacious overall except in the area of instructing their LEP students (Negrin, 2014). It is well documented that receiving meaningful professional development results in high self-efficacy toward instructing today's diverse student needs (Gaines, 2017; Negrin, 2014). Professional

development is a “vicarious experience” which is needed for self-efficacy (Bandura, 1977). Queyrel-Bryan (2017) indicated that teachers with positive self-efficacy receive more benefit from professional development. These findings should influence school leaders to recruit teachers who are self-efficacious and continue to bolster the efficacy of their teachers.

A teacher’s self-efficacy impacts his or her belief which motivates and guides his or her instructional practices (Bandura, 1986). Lavigne (2014) aimed to define how teacher beliefs about students in the United States evolve over time. Teacher relationships with students had a significant impact on a teacher’s self-efficacy in Lavigne’s research (2014) which was similar to previous findings that Kenyan teachers’ connections to students defines their self-efficacy (Wang’eri et al., 2014). Additionally, relationships established through a teacher’s sense of classroom autonomy was noted as a contributing factor in research on teachers’ positive job satisfaction (Queyrel-Bryan, 2017). Teacher attrition rates can be reduced by developing teacher-student relationships which increase teacher self-efficacy and develop the teachers’ identity that they do impact student achievement (Lavigne, 2014).

There is a wealth of research regarding the influence of principal leadership style on teachers such as principal practices of evaluation techniques, support of teacher collaboration, development of professional community, leadership style (Owens-Houck, 2018; Poulou et al., 2018; Bangerjee et al., 2017). Bangerjee et al. (2017) found that school culture developed through professional community and teacher collaboration is a determinate of overall job satisfaction and student achievement. Teachers who experience high marks on evaluations tend to have high self-efficacy (Poulou et al., 2018) thus a

principal's influence on a teacher is significant through their evaluation techniques. This research supports "professional accomplishment" as being a source of self-efficacy (Bandura, 1977). Doctoral student, Owens-Houck (2018), examined the relationships between principals' transformational leadership style (lead through modeling) and teachers' self-efficacy and found a positive correlation particularly with principals' use of intellectual stimulation, idealized influence, inspirational motivation, and individual consideration. As evidenced in the research above, principals are the driving force in school culture through sustained momentum of increasing the self-efficacy of teachers by providing positive feedback, professional community, modeling, and promoting teacher collaboration.

Measuring teacher self-efficacy. Bandura (1997) recommends measuring teacher self-efficacy in a multifaceted approach. Teacher efficacy scales should not be general but should include domains of instructional efficacy within subject areas, classroom management, resource acquirement, and social influences (Bandura, 1997). A teacher's ability to deliver subject area content is only one determinant of a teacher's self-efficacy, although it was once the sole determinant (Bandura, 1997). Prior to Bandura's Teacher Self-Efficacy Scale (1997), self-efficacy measurement tools were singular in nature focusing on teachers' perception of their ability to overcome unmotivated students and students' adverse home life (Tschannen-Moran & Woolfok-Hoy, 2001). Bandura (1997) developed a 30-item multifaceted tool which was widely used until it received criticism for not reflecting real world teaching (Tschannen-Moran & Woolfok-Hoy, 2001). In 2000, graduate seminar students at The Ohio State University developed the Ohio State Teacher Efficacy Scale (OSTES) which became known as the Teacher Sense

of Efficacy Scale (TSES) (Tschannen-Moran & Woolfolk-Hoy, 2001). The TSES was founded on 25 years of teacher self-efficacy research and contains approximately one-third of the questions from Bandura's Teacher Efficacy Scale (Tschannen-Moran & Woolfolk-Hoy, 2001). Dr. Tschannen-Moran has continued researching self-efficacy and has made the TSES available to educational researchers free of charge (Appendix E).

Teacher Job Satisfaction

The organizational structure of schools is taught and studied in educational leadership programs. Organizational structure provides a framework of controls and coordination within an organization (Lunenburg & Ornstein, 2012). One of the eight organizational variables is job satisfaction which is defined as the level of importance placed on human resources (Lunenburg & Ornstein, 2012). Each school building is unique but they all share the same human resources such as teachers and students. According to Chamundeswari (2013) teachers are the main influence on a student's education, therefore we need our teachers to be satisfied in their profession. Schiller and Hinton (2015) maintain that happy teachers produce happy students with a higher chance at student achievement. This would be simple if it were not further complicated by the teacher shortage.

Defining job satisfaction is not an easy task; however, Spector (1985) defines it as "an emotional response to a job or specific aspects of the job: it is assumed to represent a cluster of evaluative feelings about a job." More recently, Lundberg and Ornstein (2012) refer to job satisfaction of teachers as morale through such measures as school climate, absenteeism, and turnover. The teacher shortage has brought about the need for research to be conducted toward teacher job satisfaction as a means to explain and remedy the

teacher attrition (Moore, 2012; Woestman & Wasonga, 2015; Youngs et al., 2015).

According to the MetLife Survey (2012), 39% of public school teachers are satisfied with their job or career which is down from the all-time high of 62% in 2008. Moore (2012) examined teacher job satisfaction and found 15.5% of the teachers surveyed had overall job dissatisfaction. Paul E. Spector (1985) developed the Job satisfaction Survey (JSS) geared toward professions of human services. Spector's JSS (1985) is comprised of nine facets: pay, promotion, supervision, benefits, contingent rewards, operating procedures, co-workers, nature of work, and communication. The JSS has been used for determining teacher job satisfaction multiple times (Spector, 2011).

Studies on job satisfaction and school culture. Moore (2012) found three factors of the school environment that impact teacher job satisfaction. A positive environment including a supportive administration, enforced rules, shared beliefs and values, communication, collaboration, recognition, salary, and a well-run school create increased job satisfaction (Moore, 2012). Increasing teacher control over teaching and grading practices, discipline, and homework results in job satisfaction (Moore, 2012). Teachers' perceptions of student problems such as attendance issues and the teachers' perception of the overall community increase job dissatisfaction (Moore, 2012). Similarly, Chamundeswari (2013) found higher job satisfaction when a school environment is positive including such factors as pay, work hours, clean facilities, class size and number of classes, and attitudes of students and adults. In addition, a strong association was between a teacher's sense of belonging within their school environment and their commitment to the profession (Youngs et al., 2015). Furthermore, leadership behaviors can cause job stress for teachers but not all lead to job dissatisfaction

(Woestman & Wasonga, 2015). In an effort to combat the teacher shortage, school leaders need to carefully cultivate the school environment for optimal teacher job satisfaction (Moore, 2012; Woestman & Wasonga, 2015; Youngs et al., 2015).

Troesch and Bauer (2017) found that second career teachers are significantly more satisfied with their job than first year teachers and contend that investing efforts toward second career teachers will help remedy the teacher shortage. Conversely, Tschannen-Moran and Woolfolk-Hoy (2007) found the school setting was an unrelated variable to the self-efficacy beliefs of teachers. However, high levels of self-efficacy lead to higher entrepreneurial behaviors such as showing initiative and taking risks with novel teaching ideas (Neto et al., 2018). Hertzberg (1959) realized that identifying and fostering entrepreneurial behaviors in teachers fulfills motivation factors attributing to higher job satisfaction. Moreover, Ford et al. (2017) and Troesch and Bauer (2017) suggest that determining and investing in teaching candidates' self-efficacy can help with choosing the candidate that will stay in teaching. Also, teachers with high self-efficacy are significantly more satisfied with their jobs (Queyrel-Bryan, 2017; Troesch & Bauer, 2017; Viel-Ruma, Houchins, Jolivette, & Benson, 2010). Finally, teacher attrition is not only costly to schools but detrimental to learning environments (Redding & Henry, 2019).

Studies on job satisfaction and student achievement. Bangerjee et al. (2017) and Schiller and Hinton (2015) found when teachers experience job satisfaction they are happier resulting in happier students which produces higher student achievement. Chamundeswari (2013) identified teachers as the main influence on a students' educational experience, thus teachers' job satisfaction is a vital factor. Feng and Sass

(2018) found a motivating factor that is attracting alternatively certified teachers to the profession is loan forgiveness particularly in Florida's critical shortage areas.

Additionally, Feldhues and Tanner (2017) noted overall program funding problems result in high turnover rates which negatively impact student achievement. When teachers are worried about their pay this is a breakdown in the hygiene factor of wage producing a negative impact on job satisfaction (Herzberg, 1959). Furthermore, Ford et al. (2017) concluded that investing in teachers' self-efficacy will lead to more intrinsically motivated teachers which can lead to higher student achievement. Bangerjee et al. (2017) and Aziz and Quraishi (2017) recommend that educational leaders and policy makers recognize the importance positive school culture and teacher job satisfaction have on overall student achievement.

Measuring job satisfaction. Many job satisfaction surveys are in existence but not many specifically written for educators (Queyrel-Bryan, 2017). Spector (1985) created the Job Satisfaction Survey (JSS) after experiencing problems measuring the job satisfaction of human service employees, public employees, and not for profit employees. Spector (1985) initially developed 74 questions that evaluated feelings about job satisfaction but later shortened the survey to its current 36 questions. After an analysis of existing literature and scales, Spector decided the 9 subscales that needed to be measured to determine the job satisfaction for this job sector would be pay, promotion, supervision, fringe benefits, contingent rewards, operating conditions, nature of work, and communication (Spector, 1985). The subscales are grouped into extrinsic and intrinsic satisfaction with the extrinsic factors being neutral (Spector, 1985). Bumgartner, 2013; Cui-Callahan, 2012; and Queyrel-Bryan, 2017 focused their doctoral research on teacher

job satisfaction specifically calculating the mean scores for the intrinsic and extrinsic job satisfaction subtotals then correlating the mean scores to demographic variables. The JSS has been utilized in at least 55 published research studies (Spector, 2011). In opposition of Herzberg's Theory, researchers Yusoff, Kian, and Idris (2013), contend Herzberg's Theory is outdated for today's work environment and call for a revision of the theory to include extrinsic factors are not neutral and can negatively impact job satisfaction. Gawell (1997) found that the extrinsic motivator of pay was not as important as the intrinsic motivator of self-efficacy which is also counter to Herzberg's Theory. More recently though, Turkish researchers have developed a new job satisfaction measurement instrument for secondary teachers called the Sajid Teacher Motivation Scale (STMS) which has similarities to the JSS and supports Herzberg's Theory (Sajid, Rana, & Tahir, 2018).

Studies on teacher induction programs. Teacher attrition is a real problem facing schools with reports of 18% teacher turnover annually (Redding & Henry, 2018). Redding and Henry (2016) noted an increase in alternatively certified teachers leaving the profession more frequently than traditionally certified teachers. The turnover trend continues with alternatively certified teachers leaving the profession and traditionally certified teachers transferring to another school or state (Redding & Henry, 2019). Teacher turnover and attrition affects student achievement and is attributed to alternatively certified teachers lack of preservice training (Redding & Henry, 2016). Effective teacher induction programs are often discussed as a means of alleviating teacher turnover. LoCascio et al. (2016) found teacher induction programs did not affect an alternatively certified teacher's intent to stay. Instead, alternatively certified teachers find

success through learning on the job in supportive environments (Redding & Henry, 2016). Alternatively certified teachers had the same effect on student achievement as the traditionally certified teachers in their study (Feng & Sass, 2018; Clark et al., 2013). Morettini (2014) contends that encouraging individuals who express an interest in teaching to seek alternative certification produces positive results. Simply having a teacher induction program in name only will not support alternative certification teachers and can negatively affect job satisfaction and student achievement (LoCascio et al., 2016). The absence of such a program would support Herzberg's Two-Factor Motivation Theory (1959). According to Herzberg (1959) a meaningful induction program as described would contain both hygiene and motivation factors in order to produce job satisfaction. Tailored and flexible induction programs that foster trust, collaboration, vicarious experiences, feedback, and expert mentorship produce higher job satisfaction for alternatively certified teachers (Boxtel, 2017; Ford et al., 2017; LoCascio et al., 2016; McMillan et al., 2014; Morettini, 2014; Skaalvik & Skaalvik, 2016).

Teacher Self-Efficacy and Teacher Job Satisfaction

The self-efficacy and job satisfaction of employees have been widely studied around the world (Granziera & Perera, 2019). Correlational studies examining the relationship between self-efficacy and job satisfaction have recently reemerged in the research arena with mixed results (Granziera & Perera, 2019). Although a known association exists between self-efficacy and job satisfaction, the interconnectedness of the two factors is still a mystery (Demirdag, 2015). Alternatively certified teachers are believed to have lower self-efficacy than traditionally trained teachers due to lack of field experiences (Mulvihill & Martin, 2019). Nonetheless, high levels of self-efficacy can

overcome this lack of training resulting from alternative routes which has been found in second career teachers (Troesch & Bauer, 2017; West & Frey-Clark, 2019). Some research has shown that other factors may affect the job satisfaction more profoundly than self-efficacy (Aldridge, 2016; Blackburn, Bunch, & Haynes, 2019).

Studies of self-efficacy positively correlated to job satisfaction. Public and private sector researchers have found correlations between self-efficacy and job satisfaction. Chegini, Jamati, Asghari-Jarabadi, and Khosravizadeh (2019), Burhan (2019), and Islam and Ahmed (2018) found significant positive correlations between self-efficacy and job satisfaction within fields outside of education. A study conducted in the field of nursing aimed at reducing the nurse shortage in Iran concluded that self-efficacy and job satisfaction had a positive relationship in respect to organizational commitment. Burhan (2019) found a positive correlation between self-efficacy and job satisfaction that ultimately affects the work performance of employees. Bargsted, Ramirez, and Yeves (2019) and Islam and Ahmed (2018) found that self-efficacy played a mediating role in job satisfaction within the private sectors they studied. Interestingly, Islam and Ahmed (2018) noted that the mediating factor of self-efficacy enhanced training for employees, hence improved job satisfaction for the employees.

Many studies exist in relation to self-efficacy and job satisfaction in education but none were found in relation to alternatively certified teachers directly. Although, many of the studies within existing research are likely to contain alternatively certified teachers since nearly one-third of teachers entered via an alternative route (Morettini, 2014). Helms-Lorenz and Maulana (2016) and Sciuchetti and Yssel (2019) studied preservice teachers noting a relationship between self-efficacy and job satisfaction but noted that it

changed throughout their experiences and placements. Blackburn et al. (2017) studied agricultural teachers in Louisiana finding a strong, positive correlation between overall teacher efficacy and job satisfaction with only a moderate positive correlation between job satisfaction and work-life balance. Blackburn et al. (2017) concluded that this correlation to mastery experiences as depicted by Bandura (1997) have led to the Louisiana teachers' increased self-efficacy and job satisfaction. Yildirim (2015) studied physical education teachers in Turkey noting a positive and statistically significant correlation between self-efficacy and job satisfaction. Ismayilova and Klassen (2019) studied educators in higher education also concluding that teaching self-efficacy was the strongest predictor of job satisfaction.

Similarly, Caprara, Barbaranelli, Steca, and Malone (2006); Klassen and Chiu (2010); Karabiyik and Korumaz (2014); Turkoglu, Cansoy, and Parlar (2017); and Viel-Ruma et al. (2010) studied educators at all levels in various settings and concluded a positive significant correlation exists between self-efficacy and job satisfaction. A notable variation among these studies was that all types of efficacy are not correlated, specifically Viel-Ruma et al. (2010) noted that a significant relationship did not exist between collective efficacy and job satisfaction, thus concluding that personal self-efficacy is a much more important variable. Conversely, Aldridge (2016) studied high school teachers in Australia and concluded that school climate was the mediating factor between self-efficacy and job satisfaction.

Capri and Guler (2018); Molero-Jurado, Pérez-Fuentes, Atria, Oropesa-Ruiz, and Gázquez-Linares (2019); and Renbarger and Davis (2019) found positive significant correlations between self-efficacy and job satisfaction. Unlike the others mentioned

above these researchers approached self-efficacy as a mitigating factor to preventing burnout from job dissatisfaction (Capri & Guler, 2018; Molero-Jurado et al., 2019). Renbarger and Davis (2019) distinguished that self-efficacy could be a barrier to acquiring needed professional development leading to job dissatisfaction or satisfaction.

Studies of self-efficacy without correlation to job satisfaction. Demirdag (2015); Granziera and Perera (2019); Perera, Granziera, and McIlveen (2018); and Shaukat, Vishnumolakala, and Bustami (2019) found no correlation between self-efficacy and job satisfaction within their research. A study conducted in Pakistan of male and female special education teachers did not find a correlation between self-efficacy and job satisfaction but did find a correlation between self-efficacy and years of teaching experience (Shaukat et al., 2019). Demirdag (2015) studied middle school teachers in Turkey finding a negative and non-existent relationship between job satisfaction and overall self-efficacy. However, it should be noted that the self-efficacy results were low in engagement, instruction and management self-efficacy and the Turkish teachers showed only satisfaction with their supervisors and fringe benefits (Demirdag, 2015). Engagement self-efficacy demonstrated no relationship with any of the job satisfaction subscales either (Demirdag, 2015). In addition, Perera et al. (2019) did not find a correlation between self-efficacy and job satisfaction but did find correlations with personality types. Most notably, these researchers attempted to link personality type to self-efficacy but found meaningful differences in self-efficacy, engagement, and job satisfaction (Perera et al., 2019). In conclusion, the researchers found that excitable teachers had low job satisfaction where ordinary teachers had significantly low job satisfaction (Perera et al., 2019).

Granziera and Perera (2019) did not show a significant relationship between teacher self-efficacy and job satisfaction, alternatively they found associations between teacher self-efficacy and engagement which is in opposition to research conducted by Demirdag (2015). Also, Granziera and Perera (2019) noted a significant relationship between teacher engagement and job satisfaction. A unique perspective provided by this research was the significant reciprocal relationship between teacher self-efficacy and job satisfaction through engagement (Granziera & Perera, 2019).

On the whole, studies abound regarding self-efficacy and job satisfaction but much is still to be learned (Demirdag, 2015; Granziera & Perera, 2019; Karabiyik & Korumaz, 2014). Findings without correlation (Demirdag, 2015; Granziera & Perera, 2019; Karabiyik & Korumaz, 2014; Perera et al., 2018) and findings with mitigating factors (Aldridge, 2016; Bargsted et al., 2019; Islam & Ahmed, 2018) persist in the research preventing conclusive overall results making this a relevant research topic.

Impact of Selected Professional Practices

The route to obtaining a teaching certification does not guarantee a teacher will remain in the profession (Rowland-Woods, 2016). Aziz and Quraishi (2017) contend teacher self-efficacy levels are key to remaining in the profession. Hodges (2019) recognizes the difficult job of recruiting and retaining talented teachers which cannot all be determined by reading a resume. To increase recruitment and retention efforts, Hodges (2019) recommends determining a teacher's achievement drive, ability to structure and plan lessons, and build relationships with students and parents. In addition, professional practices have a tremendous effect on teachers remaining in teaching (Hodges, 2019). Moore (2012), Ronfeldt (2015), Rowland-Woods (2016), and Schuck, Ambusson,

Buchanan, Varadharajan and Burke (2018) found school culture to be one of the most indicative factors for job satisfaction and teacher retention. Furthermore, Schuck et al. (2018) found the professional practices of induction programs, administrative support, collegial support, and teacher workload heavily impact early career teachers willingness to stay in the profession.

Induction and mentoring programs as a professional practice. Schools are each unique as they are small microcosm of the community they serve (Schuck et al., 2017). Ronfeldt (2015) found schools with positive work environments are great places for preparing new teachers; however, only 1 in 5 teachers will be hired at the school in which they train (Ronfeldt, Brockman, & Campbell, 2018). Given each school's uniqueness it is important that new teachers have adequate support while learning to teach and navigate their new environment (Schuck et al., 2018). The New Teacher Center (NTC) provides resources for districts and states to utilize in support of their new teachers. NTC (2016) conducted a review of Florida's New Educator Induction program and found that Florida state policy does not require completion of an induction program but rather that teachers must demonstrate mastery of the Florida Educator Accomplished Practices (FEAPs). Within Florida, induction and mentoring programs originate and are implemented at the local level, except when it comes to teachers completing an alternate certification program then teachers are required to have a mentor according to Florida Statute § 1012.56. Potemski and Matlach (2014) define a teacher induction program as an overall system of support for new teachers which can include mentoring, curriculum planning, and professional development. Clandinin et al. (2015) maintain all early career teachers require substantial support from an induction program or mentor. More than a

generic induction program, Morettini (2014) suggests individualized support of alternate certification teachers is of extreme importance if they are to remain in the profession. According to Potemski and Matlach (2014) effective comprehensive induction programs include an effectively communicated orientation by school leadership, instructional supports provided by a peer based mentor, professional expectations aligned with state standards, and individualized professional development. Conversely, Burke, Aubusson, Schuck, & Buchanan (2015) found an inconsistent correlation between teachers leaving or staying in the teaching profession as related to having a mentor but they still suggest that induction programs that provide a mentor to be a positive professional practice.

Collegial relationships as a professional practice. Schuck et al. (2018)

establishes collegial relationships go beyond mentoring requirements including teachers' relationship that exceed pedagogical supports. Emotional support provided within the work environment to early career teachers is essential was a finding of Fresko and Nasser-Abu Alhija (2015). Schaefer, Long, & Clandinin (2012) asserts induction and mentor programs do not always provide a safe environment for early career teachers, therefore the informal collegial relationships are impactful. Rowland-Woods (2016) surmises that teachers who have positive relationships with colleagues feel more supported and have a higher self-efficacy experiencing job satisfaction. Thus, the professional practice of encouraging and nurturing collegial relationships can reduce teacher attrition (Schuck et al., 2018).

As a result of implementing professional practices that promote collegial relationships, collective efficacy can be achieved (Schuck et al., 2018). Hattie (2008) defines collective teacher efficacy as the collective perception that teachers within the

same school make an educational difference to their students over and above the educational impact of their homes and communities. Hattie's (2008) research has shown when teachers in a school share the belief of collective efficacy, it can overcome other factors that impact student achievement including socioeconomic status, prior achievement, home environment, and parental involvement. Ellis' (2011) findings support Bandura's (1977, 1986) research that a school staff that believes in their ability to do great things is vital to a positive school climate and student achievement. Opposing that, Viel-Ruma et al. (2010) only found an indirect correlation between collective efficacy and school improvement. Therefore, Viel-Ruma et al. (2010) claim increasing teacher efficacy should be the focus since their findings signify teacher efficacy is the key to job satisfaction thus reducing teacher attrition. Bangerjee et al. (2017) concluded that a professional community established by such collegial relationships can reduce teacher attrition. To sum it up, the professional practice of promoting a positive school environment that provides emotional support, resources, and relationships should be the focus to impact the teacher shortage (Bangerjee et al., 2017; Ellis, 2011; Fresko & Nasser-Abu Alhija, 2015; Rowland-Woods, 2016; Schiller & Hinton, 2015; Schuck et al., 2018).

Teacher workload as a professional practice. Chamundeswari (2013) found workload to be one of the factors that contribute to job dissatisfaction of all teachers. In particular, Schuck et al. (2018) found that early career teachers struggle with workload and time management that leads to exhaustion and is further exacerbated by additional certification requirements. Even though Morettini (2015) concludes that alternate certification teachers are a good investment, school leaders need to be aware of the

additional demands they face to achieve certification. Because of this, Troesch and Bauer (2017) recommend short alternative certification programs that provide the resources they need. Skaalvik and Skaalvik (2016) recommend reducing the number of student contact hours so new teachers can manage their workload. Alternatively, Rowland-Woods (2016) recommends providing adequate supplies and resources so less time can be spent searching. Clandinin et al. (2015) and Kass (2015) encourage school leaders and policy makers to see teachers as people first who come to the profession with personal experience and responsibilities.

Covey (2004) shares that one of the seven habits effective leaders should have is preserve and enhance themselves which he coined “Sharpen the Saw”. Clandinin et al. (2015) assert that teachers need a balance to have a fulfilling life and must be mindful of their workhours. Equally important to help balance the stress of the profession, teachers need to remember their motivation for entering the profession, understand its impact, and learn how to control it as they progress in the profession (Fernet, Trepanier, Austin, & Levesque-Cote, 2016). In short, Schuck et al. (2018) suggests we sustain more teachers in the profession by supporting new teachers through the professional practice of helping them balance the workload through such efforts as induction programs and professional development.

Leadership support as a professional practice. Bangerjee et al. (2017) established that principals are the driving force of school culture which includes implementing induction programs, promoting collegial relationships, and establishing teacher workload. In addition to programs, leadership support is a professional practice that impacts a teacher’s desire to remain in the profession (Schuck et al., 2018).

Specifically, Bangerjee et al. (2017) concludes schools need leaders who embrace professional community and teacher collaboration. Similarly, Wang'eri et al. (2014) found teachers need to perceive their school leader as invested in them through their behaviors that should motivate and inspire. Subsequently, Ford et al. (2017) and Koedel et al. (2017) found leadership support demonstrated through high evaluation scores can increase teacher self-efficacy and job satisfaction.

Even though research has shown teachers require supportive leadership to remain in the profession, destructive leadership behaviors still occur according to Woestman and Wasonga (2015). Damaging leadership behaviors that create a lack of trust most often result in negative school climate (LoCasio et al., 2016). Opposing previous research, Woestman and Wasonga (2015) found more often educational professionals with strong teacher self-efficacy are attracted to teaching and stay regardless of present destructive leadership behaviors. Even with these findings, Woestman and Wasonga (2015) still recommend eliminating destructive leadership behaviors by adequately training principals. Furthermore, Schuck et al. (2018) conclude that establishing school leaders who exhibit professional behaviors that support and encourage new teachers will assist in remedying the teacher shortage. In conclusion, Owens-Hock (2018) recommends that school leaders practice a transformational leadership style which constitutes serving as role-models, providing intellectual stimulation, and supporting collective efficacy.

Conclusion

In order for schools to obtain high student achievement, students need teachers who will build their self-efficacy and teachers need principals who will build their self-efficacy (Evans, 2015). This is a hard goal to obtain when less people are entering teacher

preparation programs and teachers are leaving the profession at high rates (Berry & Shields, 2017). Identifying the self-efficacy level of teachers and fostering the further development of teachers' self-efficacy level is a lofty yet worthy endeavor as evidenced in the research (Owens-Houck, 2018; Poulou et al., 2018; Aziz & Quraishi, 2017; Bangerjee et al., 2017; Ford et al., 2017; Gaines, 2017; Troesch & Bauer, 2017; Kass, 2015; Lavigne, 2014; Morettini, 2014; Negrin, 2014; Wang'eri et al., 2014; Britton, 2013). Teacher demographic variables such as gender, culture, prior experience, and level of professional commitment impact teacher self-efficacy levels (Aziz & Quraishi, 2017; Ford et al., 2017; Troesch & Bauer, 2017; Kass, 2015; Morettini, 2014; Britton, 2013; Wang'eri et al., 2014; Elliott et al., 2010); therefore these variables should be considered during the hiring and retaining of teachers. New and experienced teacher self-efficacy is impacted by the educational practices of inclusion of students with disabilities and students with limited English proficiency, rooted beliefs held by teachers, and principal influences such as developing a professional community and promoting teacher collaboration; consequently school achievement initiatives must use professional practices that support teachers' self-efficacy (Bangerjee et al., 2017; Gaines, 2017; Negrin, 2014; Owens-Houck, 2018; Poulou et al., 2018; Queyrel-Bryan, 2017).

Teacher self-efficacy is closely aligned with job satisfaction (Evans, 2015; Tschannen-Moran et al., 2007) and job satisfaction leads to high student achievement (Bangerjee et al., 2017; Schiler & Hinton, 2015). A high priority to achieve student achievement would be to cultivate factors that increase job satisfaction such as school environment (Moore, 2012; Woestman & Wasonga, 2015; Youngs et al., 2015).

According to Herzberg's Two-Factor Motivation Theory (1959), hygiene factors of pay

and working conditions must first be met for motivation factors of loan forgiveness and school community to have a positive effect (Feng & Sass, 2018). Alternatively certified teachers face additional challenges given their lack of preservice training (Redding & Smith, 2016), therefore it is critical for schools to develop tailored, meaningful induction programs that will meet the majority of the motivation factors to promote job satisfaction in order to reduce teacher attrition (Boxtel, 2017; Ford et al., 2017; LoCascio et al., 2016; McMillan et al., 2014; Morettini, 2014; Skaalvik & Skaalvik, 2016).

School leaders aim to hire teachers with the most potential (Hodges, 2019). Professional practices such as induction programs, collegial relationships, teacher workload, and leadership behaviors impact retention of those teachers in the profession (Schuck et al., 2018). Woestman and Wastonga (2015) recommend training school leaders to create positive school climates. To conclude, principals have the heavy burden to employ strategies to recruit talented teachers and then cultivate an environment that teachers will want to teach in for the duration of their profession (Hodges, 2019).

Research Questions

Conducting further research on job satisfaction, specifically the job satisfaction of alternatively certified teachers as a target population, will assist in developing a better understanding of job satisfaction and self-efficacy of alternatively certified teachers. The results from these three questions will add to the body of knowledge surrounding job satisfaction in education.

1. How do the mean levels of job satisfaction (i.e., total, extrinsic, and intrinsic) in the current sample of alternatively certified teachers compare to the average job satisfaction of educators as reported by Spector (1994)?

2. How do the mean levels of self-efficacy (i.e., total, management, engagement, and instruction) in the current sample of alternatively certified teachers compare to the average self-efficacy of educators as reported by Tschannen-Moran & Woolfolk-Hoy (2001)?

3. What is the association between each of the kinds of self-efficacy (i.e., total, management, engagement, and instruction) and job satisfaction (i.e., total, extrinsic, and intrinsic) for the alternatively certified teachers?

Chapter 3: Methodology

Participants

Participants. The participants were teachers with the school district being studied who have obtained a teaching certificate via alternate certification routes. At the time of the research, there were 230 alternatively certified teachers teaching at various levels with the district. The school district encompassed 10 elementary schools, four middle schools, three high schools, two center schools, and two charter schools.

Sampling Procedures. In research, a population is a group of individuals who have the same characteristic (Creswell, 2019). The population of teachers with the school district was approximately eight hundred. Creswell defines a target population as a group of individuals with a common defining characteristic and one that is used in quantitative research (2019). Alternatively certified teachers made up approximately 25% of those teachers and are the target population for this study. Since the quantity of alternatively certified teachers is low and the participation in the survey will be voluntary, the target population will include all alternatively certified teachers within the district. A sample is a subgroup of the target population (Creswell, 2019). Since online email surveys can have low response rates (Creswell, 2019), the sample will include a minimum of 100 responses from the voluntary survey via email.

Instruments

Data for this research was collected through the Job Satisfaction Survey (Spector, 1985) and the Teachers' Sense of Efficacy Scale (Tschannen-Moran & Woolfok-Hoy, 2001). Spector (1985) developed the Job Satisfaction Survey (JSS) to study the human services industry job satisfaction levels since there were limited surveys to meet this

need. The researcher chose this survey since educators are a facet of the human services sector due to their high interaction with students, parents, colleagues, and other school stakeholders. The researcher utilized the 1997 version of the JSS to answer research question one located in the Appendix A. Additionally, the researcher measured self-efficacy of alternatively certified teachers utilizing the Teachers' Sense of Efficacy Scale adapted by Tschannen-Moran and Woolfok-Hoy (2001) to answer research question two located in Appendix B. A correlation of the job satisfaction and self-efficacy score was conducted to answer the third research question.

Job Satisfaction Survey. Spector's JSS (1997) was utilized to measure the job satisfaction of alternatively certified teachers in a rural school district in Florida. Spector (1985) developed a thirty-six question survey to address key issues for human service personnel. Utilizing a Likert scale, the JSS measures the attitudinal reaction to job satisfaction (Spector, 1985). Spector predicated the JSS on the theoretical position that job satisfaction is an attitudinal reaction to the work (Spector, 1997). The JSS divides the data into nine facets: pay, promotion, supervision, benefits, contingent rewards, operating procedures, co-workers, nature of work, and communication. Additionally, researchers have grouped the subscales into intrinsic and extrinsic motivation subtotals for research (Bumgartner, 2013; Cui-Callahan, 2012; and Queyrel-Bryan, 2017). The JSS has been used for determining teacher job satisfaction multiple times (Spector, 2011). Spector allows free use of the survey as long as it is used for noncommercial educational research purposes; however, permission was obtained via email.

Teacher Sense of Efficacy Scale. The Teachers' Sense of Efficacy Scale (Tschannen-Moran et al., 2001) was utilized to measure the personal self-efficacy of

alternatively certified teachers. Tschannen-Moran and Woolfok-Hoy (2001) version of Teachers' Sense of Efficacy Scale (TSES) was used in this research to determine the self-efficacy of alternatively certified teachers. There are three subscales to the TSES: efficacy in student engagement, efficacy in instructional practices, and efficacy in classroom management. The TSES has been used for determining teacher efficacy many times and has consistently found correlation between the above three subscales and other variables (Tschannen-Moran & Woolfok-Hoy, 2001). Tschannen-Moran and Woolfok-Hoy (2001) have adapted the Ohio State Teacher Efficacy Scale for their use and prefer the title Teachers' Sense of Efficacy Scale. Free use of the survey is allowed for educators and education scholars and published on the website but email permission was obtained (Tschannen-Moran & Woolfok-Hoy, 2001).

Procedures

Design. Creswell (2019) defines quantitative research to be when an investigator explains why something occurs based on overall tendency of responses from a specific population. This study matches that objective; therefore the research is quantitative. This non-experimental research explain the self-efficacy that contribute to alternatively certified teachers being satisfied or dissatisfied with their professions. According to Creswell, this research is explanatory correlational research (2019). This research measured responses from participants for a specific point in time then correlated the responses to variables. There was not any experimental intervention on behalf of the researcher.

Data collection procedures. Approval from Nova Southeastern University's Institutional Review Board data (IRB) and the school district was obtained. The data

collection method took place through the distribution of one electronic surveys through Google Forms via email. Since the researcher is a district level administrator, all surveys were distributed with the consent of principals willing to allow their teachers to participate. The researcher obtained a list of alternatively certified teachers employed within the district at all levels at the time of the research. An introductory email was sent to district principals explaining the intent of the study and sought their support to survey their staff. A letter on the District letterhead attesting that the superintendent was aware of the project, the parameters, implementation timeline, and authorization to complete the study were included with the email. All principals supported the researcher surveying their staff. The principals were asked to forward the email to their identified alternatively certified teachers to make them aware that the survey was coming. A week later the survey was sent via email to the target population with directions to the voluntary, anonymous, and electronic survey with a due date of a week later. Attached to the email, was the NSU Participant Letter for Anonymous Surveys and Superintendent Approval Letter. In addition, a participant flyer and candy bar was sent via the district courier to all participants. The total population for the survey was determined by the number of respondents. Once the due date was reached the researcher sent a thank you for participation email to the entire target population that served as a reminder for those who had not completed it. Additionally, a participant thank you flyer and pack of gum was sent to the entire target population that also served as a reminder for those who had not completed the survey. Based on the participation rate of 50%, it was unnecessary to repeat the process soliciting more responses.

Table 1

Data Collection Timeline

Timeframe	Description
Week 1	Informal approval from Superintendent
Week 2-3	Obtained NSU IRB approval
Week 4	Official approval from Superintendent
Week 4	Obtained list of alternatively certified teachers from the District
Week 5	Introductory email to principals seeking approval
Week 6	Introductory notification email to participants and principals that the survey was coming in one week
Week 7	Sent electronic survey to participants
Week 8	Sent reminder and thank you notes to all participants
Week 9	Based on participation data, repeat if necessary but was not necessary

The data was kept secure in a password protected Google Forms file. The researcher did not collect email or IP addresses, thus the researcher did not have a way of matching completed data to survey respondents.

Data analysis procedures. After the surveys were administered, the data was downloaded from Google Forms to an Excel spreadsheet then uploaded into Statistical Package for Social Sciences (SPSS) software. A codebook was developed to organize data. Respondents were assigned a numerical code to assure confidentiality. Data analysis occurred through the use of the Statistical Package for Social Sciences (SPSS) software.

Research question one. How do the mean levels of job satisfaction (i.e., total, extrinsic, and intrinsic) in the current sample of alternatively certified teachers compare to the average job satisfaction of educators as reported by Spector (1994)? Scoring guidelines established by Spector (1985) were followed to answer research question one. The dependent variables, total, intrinsic, and extrinsic job satisfaction, were measured by the Job Satisfaction Survey developed by Spector (1994). The survey is comprised of nine subscales with four questions per subscale for a total of thirty-six questions (Spector,

1994). The intrinsic variables are contingent rewards, co-workers, nature of work, and communication (Spector, 1994). The extrinsic variables are pay, promotion, supervision, fringe benefits, and operating conditions (Spector, 1994). Each of the nine subscales of the JSS were grouped into an extrinsic and an intrinsic subtotals. The extrinsic subtotal included the mean value of pay, promotional opportunities, supervision, fringe benefits, and operating conditions subscales. The intrinsic subtotal included the mean value of contingent rewards, coworkers, nature of work, and communication. Additionally, an overall job satisfaction score was calculated from all 36 questions. Table 2 outlines the questions in relation to each subscale.

Scoring protocols for the JSS are well defined by Spector (1999). A Likert Scale was utilized for scoring with a range of 1-6 with high scores indicating job satisfaction. Items are written in positive and negative formats. For the questions that are negatively formatted, reverse scoring on the Likert Scale was conducted before totaling with the positively formatted questions. The negatively worded questions are the following: 2, 4, 6, 8, 10, 12, 14, 16, 18, 19, 21, 23, 24, 26, 29, 31, 32, 34, and 36. Non-experimental

Table 2

JSS Subscales

Subtotal	Subscale	Item numbers
Extrinsic	Pay	1, 10, 19, 28
	Promotion	2, 11, 20, 33
	Supervision	3, 12, 21, 30
	Fringe Benefits	4, 13, 22, 29
	Operating conditions	6, 15, 24, 31
Intrinsic	Contingent rewards	5, 14, 23, 32
	Coworkers	7, 16, 25, 34
	Nature of work	8, 17, 27, 35
	Communication	9, 18, 26, 36
	Total satisfaction	1-36

research controls must be employed through statistical procedures (Edmonds & Kennedy, 2017). Statistical controls were employed when scoring. Spector (1999) suggests the best procedure to determine the mean score per subscale for each individual and if there is a missing score substitute that mean for the missing items to protect the integrity of the data, otherwise the totals would be too low for analysis. Twelve different descriptive analyses and *t* Test calculations were computed to test for significant differences between the JSS Survey norms and the job satisfaction of the current sample of alternatively certified teachers. This data was kept in a password protected file and retained for 36 months.

Research question two. How do the mean levels of self-efficacy (i.e., total, management, engagement, and instruction) in the current sample of alternatively certified teachers compare to the average self-efficacy of educators as reported by Tschannen-Moran & Woolfok-Hoy (2001)? The Teacher Sense of Efficacy Scale-short version was calculated for measures of statistical tendencies. This analysis determined the self-efficacy level of alternatively certified teacher population studied. The scores from the Self-Efficacy Scale are the independent variable for this research. This short version of the TSES subscales (Tschannen-Moran & Woolfok-Hoy, 2001) contains 12 questions. The TSES is further analyzed into three subscales: efficacy in student engagement, efficacy in instructional practices, and efficacy in classroom management. Scoring protocols include computing unweighted means of the questions for efficacy in student engagement, efficacy in instructional practices, and efficacy in classroom management (Tschannen-Moran & Woolfok-Hoy, 2001). Four different descriptive analyses and *t* Test calculations were computed to test for the significant differences between the TSES

Table 3

TSES Subscales

Subscale	Item numbers
Efficacy in Student Engagement	2, 4, 7, 11
Efficacy in Instructional Strategies	5, 9, 10, 12
Efficacy in Classroom Management	1, 3, 6, 8
Total Self-Efficacy	1-12

norms and the self-efficacy levels of the current sample. Table 3 outlines the questions in relation to each subscale. This data was kept in a password protected file and retained for 36 months.

Research question three. What is the association between each of the kinds of self-efficacy (i.e., total, management, engagement, and instruction) and job satisfaction (i.e., total, extrinsic, and intrinsic) for the alternatively certified teachers? In order to answer the research question and determine the level of association that exists between the dependent variables, data screening was vital for this approach (Creswell, 2019). The data was coded and entered into SPSS for analysis. For the purposes of this study, the significant level was set at the alpha of $p < .05$. A Pearson correlation coefficient was calculated for each of the dependent and independent variables. Pearson correlations are appropriate to utilize when quantitative, raw data such as mean scores are correlated as was done with this research (Huck, 2012). The dependent variables of total, intrinsic, and extrinsic job satisfaction were correlated to the independent variables of total teacher self-efficacy and in the subscales of student engagement, efficacy in instructional strategies, and efficacy in classroom management. The correlation determined the relationship that existed between the job satisfaction subscales and subtotals with the self-efficacy total and subscales. This data was kept in a password protected file and retained for 36

months.

Chapter 4: Results

Introduction

The teacher shortage is a crisis facing education today. This study examined the job satisfaction and self-efficacy of alternatively certified teachers in a rural, midsize, public school district in Florida. The relationship between job satisfaction and self-efficacy was analyzed for the correlation coefficient. The results of this study will provide school officials with a better understanding of the role alternatively certified teachers fill during the teacher shortage facing our nation.

Demographic Characteristics

Due to the length of the surveys, specific demographic data was not collected from each respondents only for the target population. The midsize Florida school public school district serves 16,215 students in prekindergarten through twelfth grade. The demographics of the population of students within the district are: White 67.3%, Black 9.2%, Hispanic 16%, and Other: 7.5%. The district is comprised of 10 Elementary Schools, four Middle Schools, three High Schools, three Centers, one Technical College, three Charter Schools, and one Virtual School. The school district is the largest employer in the county employing 1,875 citizens. The breakdown by department is as follows: 975 instructional staff members, 985 instructional support members (e.g., paraprofessionals, departments of transportation, food service), 49 school-based administrators, and 23 district administrators.

The population of teachers with the school district is approximately 975. The count of identified alternatively certified teachers with the district is 230 which makes up approximately 25% of the overall teachers within the district. The district's alternatively

certified teacher population is comprised of 73.5% females and 26.5% males. The majority of the population's race is white at 95.7%; however, 2.2% are Asian, 1.7% are Black, and .04% are other. Of the 230 alternatively certified teachers, 21.3% are working in elementary education. Two large certification areas are Exceptional Student Education (ESE) at 20.4% and 14.8% in English Language Arts. Another more notable percentage 1.7% alternatively certified teachers teach math. Some certification areas were grouped for ease of classification. The majority of the population 60.4% earned a Bachelor's Degree while 37% earned a Master's Degree. The mean salary of the population of alternatively certified teachers is \$50,720.98. The mean number of years teaching is 10.

The sample included 115 alternatively certified teachers who responded to the voluntary survey via email. Two demographic questions were included in the survey. The first question asked if teaching was a second career for the participant see Figure 1. All 115 participants responded. Teaching was not a second career for 38% of the respondents. Teaching was a second career for the majority, 62%, who responded that teaching was a second career. Despite the fact that the researcher did not use this data to answer the research questions, it does help create a better understanding of the sample population for the study.

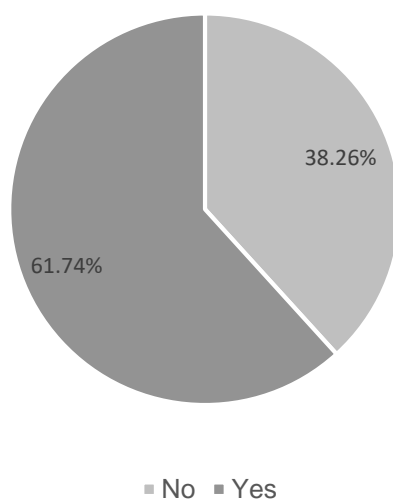


Figure 1. Second career teachers.

The second demographic question asked the reason the participant entered the education profession after obtaining a degree in another field. There were four broad response choices. Figure 2 contains the exact count for each choice and percentages follow. The largest percentage was 38% who responded with experimental influences such as informal teaching, coaching, or mentoring that led them to the profession. The next largest percentage was 30% who indicated that model influences such as a former teacher, parent, or other individual influenced the participant to entering the teaching profession. The answer choice of vocational reasons such as lack of fulfillment in prior job, content driven, or just always wanted to teach had 30% of the responses. The least choice at 8% was programmatic influences such as length of day/year and tuition reimbursement. Although this data was not used for answering the research questions, it does help to describe the overall population for the study.

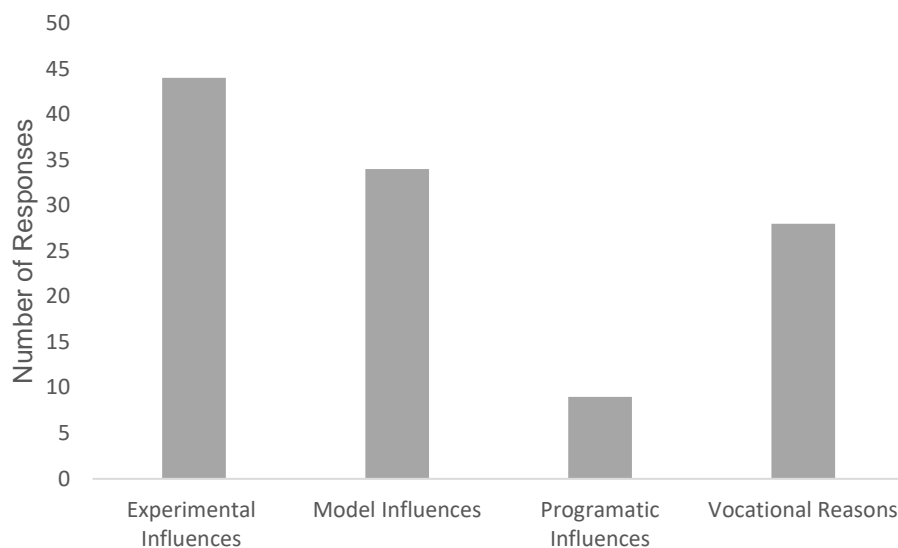


Figure 2. Reasons for entering education profession.

Data Analysis

Survey results were exported from Google Forms to Excel and saved in a password protected file. Statistical analysis were done using the IBM SPSS Statistical program.

Research question one. How do the mean levels of job satisfaction (i.e., total, extrinsic, and intrinsic) in the current sample of alternatively certified teachers compare to the average job satisfaction of educators as reported by Spector (1994)? Descriptive statistics and one-sample t Tests were used to answer research question one. Were the mean levels of job satisfaction (i.e., total, extrinsic, and intrinsic) in the current sample of alternatively certified teachers comparable to the average job satisfaction of educators as reported by Spector (1994)? The mean total JSS was determined for alternatively certified teachers in a rural southwest Florida school district. In addition to the total JSS, the means were determined for the nine subscales and the intrinsic and extrinsic job satisfaction. The independent t Test was used to determine the statistical differences

between the researcher's data and the JSS norms. Table 4 contains all data and calculations relevant to this research question. The independent t Test was most appropriate to use because the researcher analyzed data of a one-sample study and compared one mean to another mean as the statistical focus (Huck, 2012).

Total job satisfaction. Total job satisfaction scores for the current sample of alternatively certified teachers were approximately seven points higher, on average, than the reported Job Satisfaction Survey Norms for American educators. JSS norms reported the mean total job satisfaction is 126.7. The mean score of the current sample of alternatively certified teachers was 133.6957. Using an independent t test, statistical difference was observed between the group means ($t(114) = 3.206, p=.002$). The current sample of alternatively certified teachers' mean levels of job satisfaction were statistically higher than the JSS norms indicating a higher level of job satisfaction.

Pay. The job satisfaction score for the subscale of Pay for the current sample of alternatively certified teachers were approximately 3.16 points lower, on average, than the reported Job Satisfaction Survey Norms for American educators. JSS norms reported the mean job satisfaction subscale of Pay is 12. The mean score of the current sample of alternatively certified teachers was 8.84. Using an independent t Test, statistical difference was observed between the group means ($t(114) = -8.136, p<.001$). The current sample of alternatively certified teachers' mean levels of job satisfaction subscale of pay were statistically lower than the JSS norms indicating a lower level of job satisfaction in the subscale of Pay.

Promotion. The mean job satisfaction score for the subscale of Promotion for the current sample of alternatively certified teachers were approximately equal, on average,

as the reported Job Satisfaction Survey Norms for American educators. JSS norms reported the mean job satisfaction subscale of Promotion is 11.7. The mean score of the current sample of alternatively certified teachers was 11.69. Using an independent t Test, statistical difference was not observed between the group means ($t(114) = -.011, p > .50$). The current sample of alternatively certified teachers' mean levels of job satisfaction subscale of Promotion were statistically the same as the JSS norms.

Supervision. The mean job satisfaction score for the subscale of Supervision for the current sample of alternatively certified teachers were approximately 3.54 points higher, on average, than the reported Job Satisfaction Survey Norms for American educators. JSS norms reported the mean job satisfaction subscale of Supervision is 19.1. The mean score of the current sample of alternatively certified teachers was 20.97. Using an independent t Test, statistical difference was observed between the group means ($t(114) = 5.656, p < .001$). The current sample of alternatively certified teachers' mean levels of the job satisfaction subscale of promotion were statistically different from the JSS norms indicating a higher level of satisfaction in the subscale of Supervision.

Fringe benefits. The mean job satisfaction score for the subscale of Fringe Benefits for the current sample of alternatively certified teachers were approximately 5.3 points lower, on average, than the reported Job Satisfaction Survey Norms for American educators. JSS norms reported the mean job satisfaction subscale of Fringe Benefits is 14.3. The mean score of the current sample of alternatively certified teachers was 8.99. Using an independent t Test, statistical difference was observed between the group means ($t(114) = -13.861, p < .001$). The current sample of alternatively certified teachers' mean levels of the job satisfaction subscale of Fringe Benefits were statistically different from

the JSS norms indicating a lower level of satisfaction in the subscale of Fringe Benefits.

Contingent rewards. The mean job satisfaction score for the subscale of Contingent Rewards for the current sample of alternatively certified teachers were approximately one point higher, on average, than the reported Job Satisfaction Survey Norms for American educators. JSS norms reported the mean job satisfaction subscale of Contingent Rewards is 13.6. The mean score of the current sample of alternatively certified teachers was 14.31. Using an independent t Test, statistical difference was observed between the group means ($t(114) = 1.665, p > .05$). The current sample of alternatively certified teachers' mean levels of the job satisfaction subscale of Contingent Rewards were not statistically different than the JSS norms.

Operating conditions. The mean job satisfaction score for the subscale of Operating Conditions for the current sample of alternatively certified teachers were approximately one point lower, on average, than the reported Job Satisfaction Survey Norms for American educators. JSS norms reported the mean job satisfaction subscale of Operating Conditions is 12. The mean score of the current sample of alternatively certified teachers was 11.30. Using an independent t Test, statistical difference was observed between the group means ($t(114) = -1.759, p > .05$). The current sample of alternatively certified teachers' mean levels of the job satisfaction subscale of Operating Conditions were not statistically different than the JSS norms.

Coworkers. The mean job satisfaction score for the subscale of Coworkers for the current sample of alternatively certified teachers were approximately 1.55 points higher, on average, than the reported Job Satisfaction Survey Norms for American educators. JSS norms reported the mean job satisfaction subscale of Coworkers is 18.5. The mean score

of the current sample of alternatively certified teachers was 20.05. Using an independent t Test, statistical difference was observed between the group means ($t(114) = 5.019$, $p < .001$). The current sample of alternatively certified teachers' mean levels of the job satisfaction subscale of Coworkers were statistically different than the JSS norms indicating a higher level of satisfaction in the subscale of Coworkers.

Nature of work. The mean job satisfaction score for the subscale of Nature of the Work for the current sample of alternatively certified teachers were approximately 1.2 points higher, on average, than the reported Job Satisfaction Survey Norms for American educators. JSS norms reported the mean job satisfaction subscale of Nature of Work is 20.6. The mean score of the current sample of alternatively certified teachers was 19.4. Using an independent t Test, statistical difference was observed between the group means ($t(114) = 3.634$, $p < .001$). The current sample of alternatively certified teachers' mean levels of the job satisfaction subscale of Coworkers were statistically different than the JSS norms indicating a slightly higher level of satisfaction in the subscale of Nature of Work.

Communication. The mean job satisfaction score for the subscale of Communication for the current sample of alternatively certified teachers were approximately 2.34 points higher, on average, than the reported Job Satisfaction Survey Norms for American educators. JSS norms reported the mean job satisfaction subscale of Communication is 16.94. The mean score of the current sample of alternatively certified teachers was 14.6. Using an independent t Test, statistical difference was observed between the group means ($t(114) = 6.150$, $p < .001$). The current sample of alternatively certified teachers' mean levels of the job satisfaction subscale of Coworkers were

statistically different from the JSS norms indicating a higher level of satisfaction in the subscale of Communication.

Intrinsic subtotal. Intrinsic job satisfaction scores for the current sample of alternatively certified teachers were approximately 1.48 points higher, on average, than calculated Job Satisfaction Survey Norms for American educators. JSS norms did not report the mean for intrinsic job satisfaction as a subtotal but the norms for each of the subscales that comprise the intrinsic job satisfaction subtotal were provided and used to calculate the mean for the intrinsic job satisfaction subtotal norms. The researcher utilized the mean subscale norms of contingent rewards (13.6), co-workers (18.5), nature of work (19.4), and communication (14.6) to calculate the intrinsic job satisfaction mean of 16.525 according to categorization by Spector (1997). The mean intrinsic job satisfaction score of the current sample of alternatively certified teachers was 17.9761. Using an independent t Test, statistical difference was observed between the group means ($t(114) = 5.290, p < .001$). The current sample of alternatively certified teachers' mean levels of the intrinsic job satisfaction were statistically different than the JSS norms indicating a higher level of intrinsic satisfaction.

Extrinsic subtotal. Extrinsic job satisfaction scores for alternatively certified teachers in a southwest Florida school district were approximately 1.46 points lower, on average, than the reported Job Satisfaction Survey Norms for American educators. JSS norms did not report the mean for extrinsic job satisfaction but the norms for each of the subscales that total extrinsic job satisfaction were provided and used to calculate the mean. The researcher utilized the mean subscale norms of pay (12.0), promotion (11.7), supervision (19.1), fringe benefits (14.3), and operating conditions (12.0) to calculate the

extrinsic job satisfaction mean of 13.82 according to categorization by Spector (1997). The mean extrinsic job satisfaction score of the current sample of alternatively certified teachers was 12.3583. Using an independent t Test, statistical difference was observed between the group means ($t(114) = -5.684, p < .001$). The current sample of alternatively certified teachers' mean levels of the extrinsic job satisfaction were statistically different than the JSS norms indicating a lower level of extrinsic satisfaction.

Overall analysis. A statistical difference was noted between the JSS norms and total job satisfaction, the majority of job satisfaction subscales, and the intrinsic extrinsic subtotals for alternatively certified teachers in a rural southwest Florida school district. The total job satisfaction results were higher than the JSS norms; however, when upon further analysis the intrinsic subtotal is higher and the extrinsic subtotal is lower than the JSS norms. These results indicate a higher level of job satisfaction for the intrinsic motivation factors and lower satisfaction for the extrinsic motivation factors as revealed in the survey results for the current sample of alternatively certified teachers.

Table 4

JSS Data Analysis

Subscales of Job Satisfaction	Mean	Standard Deviation	JSS Norm	<i>t</i> Test Score	Significance Level	Mean Difference
Total	133.6957	23.40309	126.7	3.206	.002	6.99565
Pay	8.8435	4.16036	12	-8.136	.000	-3.15652
Promotion	11.6957	4.24713	11.7	-.011	.991	-.00435
Supervision	20.9652	3.53660	19.1	5.656	.000	1.86522
Fringe Benefits	8.9913	4.10711	14.3	-13.861	.000	-5.30870
Contingent Rewards	14.3130	4.59283	13.6	1.665	.099	.71304
Operating Conditions	11.2957	4.29397	12	-1.759	.081	-.70435
Coworkers	20.0522	3.31621	18.5	5.019	.000	1.55217
Nature of Work	20.6000	3.54124	19.4	3.634	.000	1.200
Communication	16.9391	4.07880	14.6	6.150	.000	2.33913
Intrinsic	17.9761	2.94168	16.525	5.290	.000	1.45109
Extrinsic	12.3583	2.75789	13.82	-5.684	.000	-1.46174

Note. N=115, df = 114

Research Question Two. How do the mean levels of self-efficacy (i.e., total, management, engagement, and instruction) in the current sample of alternatively certified teachers compare to the average self-efficacy of educators as reported by Tschannen-Moran & Woolfok-Hoy (2001)? Descriptive statistics and one-sample *t* Tests were conducted to answer research question two. Were the mean levels of self-efficacy (i.e., total, engagement, instruction, and management) in the current sample of alternatively certified teachers comparable to the average self-efficacy of educators as reported by Tschannen-Moran & Woolfok-Hoy (2001)? The mean TSES score was determined for the current sample of alternatively certified teachers. The independent *t* Test was used to determine the statistical differences between the researcher's data and the TSES norms. Table 5 contains all data and calculations pertinent to this research question. The independent *t* Test was most appropriate to use because the researcher analyzed data of a

one-sample study and compared one mean to another mean as the statistical focus (Huck, 2012).

Total self-efficacy. The total teacher self-efficacy scores for the current sample of alternatively certified teachers was approximately eight points higher, on average, than the TSES norms. The TSES has reported the norm for total teacher self-efficacy is 7.1. The mean score for total teacher self-efficacy of the current sample of alternatively certified teachers was 5.188. Using an independent t Test, statistical difference was observed between the group means ($t(114) = 5.188, p < .50$). The current sample of alternatively certified teachers' mean levels of teacher self-efficacy were statistically different than the TSES norms indicating a higher level of teacher self-efficacy.

Engagement self-efficacy. The engagement subscale of the teacher self-efficacy scores for the current sample of alternatively certified teachers was approximately .03 points less, on average, than the TSES norms. The TSES has reported the norm for the engagement subscale of the teacher self-efficacy is 7.2. The mean score for engagement subscale of the teacher self-efficacy of the current sample of alternatively certified teachers was 7.17. Using an independent t Test, no statistical difference was observed between the group means ($t(114) = -.232, p > .05$). The current sample of alternatively certified teachers' mean levels of the teacher self-efficacy subscale of engagement were not statistically different than the TSES norms.

Instruction self-efficacy. The instruction subscale of the teacher self-efficacy scores for the current sample of alternatively certified teachers was approximately one point higher, on average, than the TSES norms. The TSES has reported the norm for the instruction subscale of the teacher self-efficacy is 7.3. The mean score for instruction

subscale of the teacher self-efficacy of the current sample of alternatively certified teachers was 7.99. Using an independent t Test, a statistical difference was observed between the group means ($t(114) = 8.404, p < .001$). The current sample of alternatively certified teachers' mean levels of the teacher self-efficacy subscale of instruction were statistically different from the TSES norms indicating a higher level of teacher self-efficacy subscale of instruction.

Management self-efficacy. The management subscale of the teacher self-efficacy scores for the current sample of alternatively certified teachers was approximately one point higher, on average, than the TSES norms. The TSES has reported the norm is for the management subscale of the teacher self-efficacy is 6.7. The mean score for management subscale of the teacher self-efficacy of the current sample of alternatively certified teachers was 7.57. Using an independent t Test, a statistical difference was observed between the group means ($t(114) = 7.689, p < .001$). The current sample of alternatively certified teachers' mean levels of the teacher self-efficacy subscale of management were statistically different than the TSES norms indicating a higher level of teacher self-efficacy subscale of management.

Table 5

TSES Data Analysis

Subscales of Teacher Self-efficacy	Mean	Standard Deviation	TSES Norms	t Test Scores	Significance Level	Mean Difference
Total	7.5761	.98401	7.1	5.188	.000	.47609
Engagement	7.1717	1.30593	7.2	-2.32	.817	-.02826
Instruction	7.9870	.87662	7.3	8.404	.000	.68696
Management	7.5696	1.21285	6.7	7.689	.000	.86957

Note. N=115, df=114

Overall analysis. A statistical difference was noted between the TSES norms and the total self-efficacy score and the subscales of instruction and management for the current sample of alternatively certified teachers. The self-efficacy subscale of engagement did not have a statistical difference when compared to the TSES norms. The current sample of alternatively certified teachers had higher mean scores for teacher self-efficacy compared to TSES norms.

Research Question Three. The data was coded and entered into SPSS for analysis. Bivariate correlations and frequency scatterplots were used to answer research question three. What is the association between each of the kinds of self-efficacy (i.e., management, engagement, and instruction) and job satisfaction (i.e., total, intrinsic, and extrinsic) for the alternatively certified teachers? The mean scores from the TSES (i.e., total, engagement, instruction, and management) and the JSS (i.e., total, intrinsic, and extrinsic) were analyzed for association. Table 6 contains all the data and calculations associated with this research question. Appendix D contains the scatterplots pertinent to answering this research question. There are two variables tested for association so bivariate correlation is appropriate for this research (Huck, 2012).

Total self-efficacy. A strong positive correlation exists between Total Self-Efficacy and Total Job Satisfaction results for the sample population ($r = .361, p < 0.01$). That is as self-efficacy increases so does job satisfaction. A moderately strong, positive correlation does exist between Total Self-efficacy and Intrinsic Job Satisfaction subtotal results for the sample population ($r = .461, p < .01$). That is as Total Self-efficacy increases so increases intrinsic job satisfaction. A weak, positive correlation does exist between Total Self-efficacy and Extrinsic Job Satisfaction subtotal results for the sample

population ($r = .291, p < .05$). That is as total self-efficacy increases extrinsic job satisfaction increases slightly.

Subscale engagement self-efficacy. A strong positive correlation exists between Self-efficacy subscale of Engagement and Total Job Satisfaction results for the sample population ($r = .449, p < 0.01$). That is as engagement self-efficacy increases so does job satisfaction. A moderately strong, positive correlation does exist between the Engagement Self-efficacy subscale and Intrinsic Job Satisfaction subtotal results for the sample population ($r = .535, p < .01$). That is as Engagement Self-efficacy increases so increases intrinsic job satisfaction. A moderately strong positive correlation does exist between Engagement Self-efficacy and Extrinsic Job Satisfaction subtotal results for the sample population ($r = .307, p < .05$). That is as Engagement self-efficacy increases extrinsic job satisfaction increases slightly.

Subscale instruction self-efficacy. A correlation does not exist between Self-efficacy subscale of Instruction and Total Job Satisfaction results for the sample population ($r = .050, p > .50$). That is as instruction self-efficacy increases there is no effect on job satisfaction. A correlation does not exist between the Instruction Self-efficacy subscale and Intrinsic Job Satisfaction subtotal results for the sample population ($r = .163, p = .081$). That is as Instruction Self-efficacy increases there is not an impact on intrinsic job satisfaction. A correlation does not exist between Instruction Self-efficacy and Extrinsic Job Satisfaction subtotal results for the sample population ($r = -.054, p > .50$). That is as Instruction self-efficacy increases there is not an impact on extrinsic job satisfaction.

Subscale management self-efficacy. A correlation does exist between Self-

efficacy subscale of Management and Total Job Satisfaction results for the sample population ($r = .358, p < .001$). That is as Management self-efficacy increases so does job satisfaction. A moderately strong positive correlation does exist between the Management Self-efficacy subscale and Intrinsic Job Satisfaction subtotal results for the sample population ($r = .427, p < .01$). That is as Management Self-efficacy increases intrinsic job satisfaction increases slightly. A weak positive correlation does exist between Management Self-efficacy and Extrinsic Job Satisfaction subtotal results for the sample population ($r = .243, p < .01$). That is as Management self-efficacy increases extrinsic job satisfaction increases slightly.

Overall analysis. A correlation was noted between the TSES results and the JSS results for the sample population of alternatively certified teachers. TSES subscales of engagement and management were positively correlated to the JSS results (total, intrinsic, and extrinsic). The TSES subscale of instruction was not correlated to any of the JSS results (total, intrinsic, or extrinsic). Even though a correlation was not found for the Self-efficacy subscale of instruction, it is important to note that there was correlation found between total self-efficacy and total job satisfaction.

Table 6

Teacher Self-Efficacy and Job Satisfaction Correlations

Teacher Self- efficacy	Job Satisfaction	Pearson Correlation	Significance Level	Correlation
Total Self- efficacy	Total Job Satisfaction	.361	.000	Moderately strong positive
Total Self- efficacy	Intrinsic Job Satisfaction	.461	.000	Moderately strong positive
Total Self- efficacy	Extrinsic Job Satisfaction	.219	.019	Weak positive
Engagement	Total Job Satisfaction	.449	.000	Moderately strong positive
Engagement	Intrinsic Job Satisfaction	.535	.000	Moderately strong positive
Engagement	Extrinsic Job Satisfaction	.307	.001	Moderately strong positive
Instruction	Total Job Satisfaction	.050	.594	None
Instruction	Intrinsic Job Satisfaction	.163	.081	None
Instruction	Extrinsic Job Satisfaction	-.054	.566	None
Management	Total Job Satisfaction	.358	.000	Moderately strong positive
Management	Intrinsic Job Satisfaction	.427	.000	Moderately strong positive
Management	Extrinsic Job Satisfaction	.243	.009	Weak positive

Note. N=115

Chapter 5: Discussion

Introduction

This study was intended to determine the self-efficacy and job satisfaction levels of alternatively certified teachers in a rural, midsize, public school district in Florida through the administration of an online survey comprised of the JSS and TSES surveys. Additionally, the study sought to determine if there was a correlation between the self-efficacy and job satisfaction levels. This research served as baseline data for recruitment and retention practices within the district given the teacher shortage facing this area and the nation. The hope is that this research study will contribute to the body of knowledge on teacher self-efficacy and job satisfaction in general and for alternatively certified teachers specifically.

Summary of Findings

This research study covered three research questions. There were significant statistical differences in the data collected via the surveys conducted on the sample of alternatively certified teachers compared to the norms presented in the survey research. Additionally, a statistically significant correlation exists between the self-efficacy survey results and job satisfaction results for the current sample of alternatively certified teachers.

Job satisfaction. The mean levels of job satisfaction (i.e. total, intrinsic, and extrinsic) in the current sample of alternatively certified teachers were statistically different in comparison to the average job satisfaction of educators as reported by Spector (1994). The total job satisfaction and the two subtotals of intrinsic and extrinsic factors were statistically different. The analysis of subscales revealed a more detailed

understanding about the job satisfaction levels. Results that indicated a higher level of satisfaction compared to JSS norms were the total score, the subtotal of intrinsic motivation factors, and the subscales of supervision, contingent rewards, coworkers, nature of work, and communication. Results that indicated a lower level of satisfaction compared to JSS norms were the subtotal of extrinsic motivation factors and the subscales of pay, fringe benefits, and operating conditions. The subscale of promotion was equivalent to the JSS norms. The current sample of alternatively certified teachers have a higher level of job satisfaction compared to the JSS norms specifically with intrinsic motivation factors.

Teacher self-efficacy. The mean levels of self-efficacy (i.e., total, management, and instruction) in the current sample of alternatively certified teachers were statistically different as compared to the average self-efficacy of educators as reported by Tschannen-Moran & Woolfolk-Hoy (2001). The subscale of engagement was not significantly different than the TSES norms. The total teacher self-efficacy result and the subscales of instruction and management were higher than the TSES norms. The current sample of alternatively certified teachers had higher mean scores for teacher self-efficacy compared to TSES Norms specifically in self-efficacy with instruction and management.

Correlation of job satisfaction and self-efficacy. Correlations were noted between self-efficacy results (i.e., total, management, and engagement) and job satisfaction results (i.e., total, intrinsic, and extrinsic) for the current sample of alternatively certified teachers. A correlation between the subscale of instruction self-efficacy and job satisfaction (i.e. total, intrinsic, or extrinsic) was not found. More specifically, moderately strong positive correlations were found between total self-

efficacy results and total job satisfaction results and intrinsic job satisfaction results. Consequently, only a weak positive correlation was found between total self-efficacy and extrinsic job satisfaction.

The research data further revealed the correlations between the subscales of self-efficacy. The self-efficacy subscale of engagement and management self-efficacy results had a moderately strong positive correlation to total job satisfaction results, as well as intrinsic and extrinsic job satisfaction subtotal results. Subsequently, weak positive correlations were noted for the self-efficacy subscale of management results and extrinsic job satisfaction subtotal results. Most notable of the subscale results was the lack of correlation between the results of the self-efficacy subscale of instruction with all of the job satisfaction results.

Interpretation of Findings

While in the midst of an era where fewer and fewer people are enrolling in college level teacher preparation programs, this research presents data on a much needed alternative teaching population (Hohnstein, 2017). School officials need educators who are self-efficacious and satisfied with their jobs (Bandura, 1986). This research study revealed that the current sample population of alternatively certified teachers are overall self-efficacious and satisfied with their jobs. In addition, the data shows a moderately strong positive correlation between the self-efficacy level results and job satisfaction level results of the same sample population of alternatively certified teachers. Particularly, the self-efficacy subscale of engagement and management have positive correlations to total job satisfaction results as well as intrinsic and extrinsic job satisfaction results. Conversely, the self-efficacy subscale of instruction was not

correlated with job satisfaction (i.e. total, intrinsic, or extrinsic).

Job satisfaction. The sample population of alternatively certified teachers had a higher level of job satisfaction compared to the JSS norms specifically with intrinsic motivation factors. Dissatisfaction with the education profession is widely publicized in the media leading many to believe that teachers are unhappy with their careers (Cowan et al., 2016). This research contradicts that belief, at least as it pertains to the current sample of alternatively certified teachers studied. The population studied are less satisfied with the extrinsic parts of their jobs such as pay, fringe benefits, and operating conditions. This result was as to be expected since the district and the teacher's union were engaged in collectively bargaining pay and fringe benefits at the time of this study.

Self-efficacy. The current sample of alternatively certified teaches had higher mean scores for teacher self-efficacy compared to TSES norms specifically in self-efficacy with instruction and management. Teacher self-efficacy was not measured for the whole population of teachers within this district; however, much of the prior research described the level of self-efficacy levels of teachers changed over time. Since the sample for this research had varying degrees of experience, the results were expected. An unexpected result was the lower mean result of the self-efficacy subscale of engagement as compared to the norms. This is a salient point for school officials to note as an area for attention when supporting alternatively certified teachers. The self-efficacy subscales of instruction and management were higher than the norms, therefore the alternatively certified teachers are confident in their instruction and management techniques.

Correlations. In addition, the data shows a moderately strong positive correlation between the self-efficacy level results and job satisfaction level results of the same

population of alternatively certified teachers as expected. Particularly, the self-efficacy subscale of engagement and management have moderately strong positive correlations to total job satisfaction results as well as intrinsic and extrinsic job satisfaction results. Additionally, the total self-efficacy results and the self-efficacy subscale of management results had a weak positive correlation to the extrinsic job satisfaction subtotals. The results of this research study support the positive association between self-efficacy and teacher job satisfaction, but do not imply a cause and effect relationship. According to Creswell (2019), correlational research describes the association between variables but does not imply cause and effect. This means even though a positive association exists between self-efficacy and job satisfaction for alternatively certified teachers; it does not mean that high self-efficacy levels cause job satisfaction. It simply means that when a teacher is self-efficacious particularly with engagement and management techniques there is a higher chance of the teacher being satisfied with the profession.

Context of Findings

Job satisfaction and self-efficacy are widely researched factors. The correlation of job satisfaction and self-efficacy have recently increased in popularity. Another component of this research that is widely studied is the population of alternative teacher certification programs. Graduates from STEM fields with graduate level degrees are sometimes exempt from some of the licensure tests making it easier to enter the education profession. States may want to consider this practice in additional situations due to inconsistent findings correlating the state licensure tests to student achievement (Goldhauber, Gratz, & Theobald, 2017). Jordan, DiCiccio, and Sabella (2017) found in their qualitative study that STEM teachers who entered the profession via an alternative

route have a difficult time relating to students. Even so alternative teachers provide human capital toward the teacher shortage and have impacted education in a positive way (Pazyura, 2015). This research is unique due to the population studied in the context of job satisfaction, self-efficacy, and the correlation of those two factors. Bowling and Ball (2018) encourage researchers to investigate the unique population of alternatively certified teachers that are filling our schools.

Job satisfaction. The importance of job satisfaction cannot be disputed in terms of the importance to its impact on student achievement (Bangerjee et al., 2017; Schiler & Hinton, 2015). The research findings that the sample of alternatively certified teachers surveyed were satisfied with their profession is in contrast to the research that alternatively certified teachers leave the profession at a higher rate than traditionally certified teachers (Redding & Henry, 2018). The results obtained in this research that indicated a high level of satisfaction for the subtotal of intrinsic motivation factors, and the subscales of supervision, contingent rewards, coworkers, nature of work, and communication is consistent with the research findings that the school environment plays an important part in job satisfaction (Moore, 2012; Woestman & Wasonga, 2015; Youngs et al., 2015). The subscales of supervision and communication were significantly higher than the JSS norms which is congruent with the existing research on the impact of leadership style and communication on overall job satisfaction (Bangerjee et al., 2017; Ford et al., 2017; Moore, 2012; Woestman & Wasonga, 2015; Youngs et al., 2015). The sample results were lower for extrinsic motivation factors such as pay, fringe benefits and operating conditions which is consistent with the existing research (Chamundeswari, 2013; Moore, 2012).

Alternatively certified teachers lack preservice training (Redding & Smith, 2016) similar to the sample, for that reason intrinsic motivation factors must be emphasized to promote job satisfaction (McMillan et al., 2014; Morettini, 2014; Skaalvik & Skaalvik, 2016). The current sample population of alternatively certified teachers' results indicate a high level of job satisfaction particularly with a high level of intrinsic job satisfaction as compared to the norms. Considering these results, school districts want to retain teachers such as the sample. Mulvihill and Martin (2019) maintain that school officials need to help alternatively certified teachers transition from the paradigm that teaching is a job to teaching being a profession which will assist in retention efforts.

Teacher Self-efficacy. High student achievement requires teachers who will foster student self-efficacy and principals who will foster teacher self-efficacy (Evans, 2015). Alternatively certified teaches in a rural southwest Florida school district had higher mean scores for teacher self-efficacy compared to TSES norms specifically in self-efficacy with instruction and management. The current research results are in contrast to prior research which found alternatively certified teachers to have lower self-efficacy (Mulvihill & Martin, 2019). Past research did not find significant differences in self-efficacy levels in regard to the demographic data of the teachers (Aziz & Quraishi, 2017); therefore, the researcher chose not to add questions to collect the demographic data. Instead, the researcher generalized the population. The population of teacher studied for this research included teachers who teach varying populations including English Language Learners and Students with Disabilities. Even though those factors impact teachers' self-efficacy levels (Gaines, 2017; Negrin, 2014; Owens-Houck, 2018; Poulou et al., 2018; Queyrel-Bryan, 2017). Conversely to the aforementioned research, the

research sample results indicated a higher than average self-efficacy level. Additionally, teacher self-efficacy was found unrelated to school setting (Tschannen-Moran & Woolfolk-Hoy, 2007), which corresponds to the results of this research through the high levels of self-efficacy present all around the district at various levels.

Correlations. Existing research closely associates teacher self-efficacy with job satisfaction (Evans, 2015; Tschannen-Moran et al., 2007). The results of the current research corroborate past research that also found a correlation between self-efficacy and job satisfaction (Capri & Guler, 2018; Molero-Jurado et al., 2019; Pérez-Fuentes et al., 2019; Renbarger & Davis, 2019). The current research results were conducted at various levels still finding a significant positive correlation congruent with existing research (Karabiyik & Korumaz, 2014; Klassen & Chiu, 2010). Demirdag's (2015) research indicated a lack of correlation with the self-efficacy subscale of engagement which contrasts the current research results that do indicate a weak positive correlation. The current results align closer with the past research that found a significant reciprocal relationship between teacher self-efficacy and job satisfaction through engagement (Granziera & Perera, 2019).

A unique revelation from the current research as compared to existing research was the lack of correlation with the self-efficacy subscale of instruction. This lack of association could be due to other factors that may affect the job satisfaction more profoundly than self-efficacy as indicated in existing research (Aldridge, 2016; Blackburn et al., 2019). The current research sample was inclusive of teachers who teach high need populations such as students with disabilities. The moderately strong positive correlation has disparity with past research conducted with special education teachers

specifically which found no correlation between self-efficacy and job satisfaction (Shaukat et al., 2019).

Implications of Findings

The theoretical framework for this study was based on two theoretical foundations: Herzberg's Two-Factor Theory of Motivation (1959) and Bandura's Self-Efficacy Theory (1977). Nagar (2012) found that job satisfaction is a huge contributor to teacher attrition. High levels of self-efficacy and job satisfaction have been found to mitigate the teacher shortage by improving teacher recruitment and retention efforts (Elliott et al., 2010). Therefore, the positive correlation of teacher self-efficacy levels and job satisfaction make those factors important contributors to the retention and recruitment practices of the education profession (Capri & Guler, 2018; Molero-Jurado et al., 2019).

Bandura's Self-efficacy Theory (1977, 1997) is based on four sources of efficacy expectations: performance accomplishments, vicarious experience, verbal persuasion, and emotional arousal. Bandura's Self-efficacy Theory (1977) depicts a teacher's instructional self-efficacy as the most influential factor in the profession. The findings from this study are supported by Bandura's Theory (1997). The higher self-efficacy levels of the alternatively certified teachers as compared to the norms can be a causal influence toward their job satisfaction. The total self-efficacy level of the sample population is higher than the norms, in relation to Bandura's theory, this means the alternatively certified teachers are benefiting from their performance accomplishments, vicarious experiences, verbal persuasions, and emotional arousals while at work. This research finding of the subscale of engagement indicating a lower level of self-efficacy than the norms could be concerning in relation to Bandura's theory and existing research.

Lavigne (2014) found that teacher's self-efficacy can be influenced by the teachers' relationships with students. School districts may consider this a signal to increase the engagement of alternatively certified teachers. School officials should continue to nurture the self-efficacy of all teachers but particularly the engagement levels of alternatively certified teachers (Perera et al., 2018).

Herzberg (1959) theorized that the Two-Factor Theory of Motivation embodied extrinsic or hygiene factors and the intrinsic or motivation factors which lead to job satisfaction. The most important factors in Herzberg's (1959) theory are the intrinsic factors thus making the extrinsic factors neutral unless they were not present at all. The current research findings are supported by Herzberg's theory. The current sample results had higher intrinsic self-efficacy subtotal levels and higher job satisfaction levels than the norms. Interestingly, the lower extrinsic self-efficacy subtotal did not impact the overall job satisfaction as supported by the Two-Factor Theory of Motivation (Herzberg, 1959). These results also coincide with Maslow's hierarchy of needs being esteem and self-actualization. The lack of correlation between the self-efficacy subscale of instruction and job satisfaction is contrast to Herzberg's theory that depicts the most importance being placed on the extrinsic factors that encompasses the actual work such as instruction. Lundenburg and Ornstein (2012) also found that the extrinsic factors were important toward superior performance. However, the current research results coincide with Yusoff et al., (2013) findings that Herzberg's theory may not be as relevant in today's work environment. Furthermore, Gawel (1997) attributed the findings that emphasize the significance of pay, which are in contrast to Herzberg's theory, to be the reason why good teachers are leaving the profession. School officials should interpret these results

that extrinsic motivating factors are playing a more important role in the education profession; therefore, school officials should consider the pay and fringe benefit options as important factors for increasing the pool of teachers to fill the shortage facing our nation. Chamberlin-Kim, Tarnay, and Wells (2019) suggest utilizing the 7Ps of Marketing to help recruit and retain alternatively certified teachers to the profession. Extending school recruitment efforts outside the walls of the schools to seek midcareer professionals can prove prosperous with additional measures to support self-efficacy and job satisfaction (Chamberlin-Kim et al., 2019).

Limitations of the Study

The three threats to this nonexperimental research are external, construct, and statistical conclusion validity. When considering external threats to nonexperimental research, the researcher must consider sample characteristics including using the appropriate sampling procedure and power analysis. The researcher collected data from all the alternatively certified teachers within the same district. Random sampling would not be necessary since the response rate for online surveys is typically so low. In addition a power analysis must be determined before the data is collected to determine an adequate sample size (Edmonds & Kennedy, 2017, p. 241).

Additionally, the researcher must address construct validity when conducting nonexperimental research. Two threats were present when the research began. First, the participants were at different locations across the district; therefore, the researcher had to manage the levels of attention and contact with the participants. Since the survey was sent electronically to principals and participants, the level of attention and contact had to remain constant across the district. Site visits were not required for this research, thus

eliminating that threat. Secondly, the timing of the measurement was important since the demeanor of teachers change from the start of the year to the end and/or middle of the year. This awareness of reactivity to the assessment was important for the researcher (Edmonds & Kennedy, 2017, p. 134). The researcher ensured the survey was sent during the beginning of the school year and all at the same time to protect the timing of the measurement.

Finally, the largest threat in this type of research is statistical conclusion validity. An assumption violation within the statistical tests could have been a threat. Potentially the researcher could have made an overestimation or underestimation of the relationships between the variables. The researcher determined the statistical power necessary before collecting data to prevent this threat. Due to the inclusion of all alternatively certified teachers regardless of any demographic variables, it was important to note such within this limitations section of the research. The limitations anticipated with this study include factors out of the researcher's control. The district for which this study is taking place has recently undergone a property tax referendum resulting in a 6% increase of salaries for all employees. Although this is a positive action, there are negative feelings associated with some inequities that exist across job descriptions and salaries. Positive or negative feelings on behalf of the participants may sway the results. Since this study is to take place at the beginning of the school year, this will be one more thing for employees to have to do which adds to their already busy day. The researcher has recently been promoted to Director of Human Resources. A limitation was to take the additional necessary steps so there was no influence of the new appointment toward skewing results or applied pressure to participate.

Alternatively certified teachers are a rather small percentage of the overall teachers within the district so this was a limitation to determining any generalized associations. At best the researcher can hope to make some causal statements toward influencing the recruiting and retaining of alternatively certified teachers in other rural public school districts. The district employs almost one thousand teachers with two-hundred and thirty which of whom were certified via an alternative route. The target population required 20% to conduct the research. The researcher needed the majority of the target population to complete the survey for statistical reliability.

Future Research Directions

This research presents interesting and unique data on a much needed population of teachers to help mediate the teacher shortage facing our nation. Future research should replicate this study with a larger population of alternatively certified teachers, perhaps with all alternatively certified teachers within a state. Future research should replicate this study with an entire population of teachers. A unique perspective would be to analyze the data based on the role of the participants regardless of route to certification. Similarly, if demographic data was collected on the participants and a multivariate analysis was conducted that research would add to the existing literature surrounding these topics. The researcher did not take that route for this study due to time constraints on behalf of the participants. If a future researcher were to undertake that study, the researchers should be prepared to receive less responses due to the length of the survey. The researcher collected answers for a demographic question related to the reason the alternatively certified teacher entered the education profession (Moretti, 2014). Due to the sample size, this was not investigated further; however, if the sample size was large enough this could

be a salient point for future research.

Additionally, collecting data to measure engagement levels as third factor could add to the existing body of research that has inconsistently demonstrated the role engagement places in self-efficacy and job satisfaction. The current research and past research have indicated that other factors may affect self-efficacy and job satisfaction levels (Aldridge, 2016; Blackburn et al., 2019). Furthermore, tracking the same teachers over time to see how their self-efficacy and job satisfaction levels change would help with future retention practices of similar school districts. Collective efficacy was not investigated in this research study but much of the past research indicates it is a factor. Analyzing the collective efficacy of a population and correlating it to school climate result would be an interesting approach for future research.

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Appendix A

The Job Satisfaction Survey by Paul E. Spector

JOB SATISFACTION SURVEY Paul E. Spector Department of Psychology University of South Florida Copyright Paul E. Spector 1994, All rights reserved.		
PLEASE CIRCLE THE ONE NUMBER FOR EACH QUESTION THAT COMES CLOSEST TO REFLECTING YOUR OPINION ABOUT IT.		Disagree very much Disagree moderately Disagree slightly Agree slightly Agree moderately Agree very much
1	I feel I am being paid a fair amount for the work I do.	1 2 3 4 5 6
2	There is really too little chance for promotion on my job.	1 2 3 4 5 6
3	My supervisor is quite competent in doing his/her job.	1 2 3 4 5 6
4	I am not satisfied with the benefits I receive.	1 2 3 4 5 6
5	When I do a good job, I receive the recognition for it that I should receive.	1 2 3 4 5 6
6	Many of our rules and procedures make doing a good job difficult.	1 2 3 4 5 6
7	I like the people I work with.	1 2 3 4 5 6
8	I sometimes feel my job is meaningless.	1 2 3 4 5 6
9	Communications seem good within this organization.	1 2 3 4 5 6
10	Raises are too few and far between.	1 2 3 4 5 6
11	Those who do well on the job stand a fair chance of being promoted.	1 2 3 4 5 6
12	My supervisor is unfair to me.	1 2 3 4 5 6
13	The benefits we receive are as good as most other organizations offer.	1 2 3 4 5 6
14	I do not feel that the work I do is appreciated.	1 2 3 4 5 6
15	My efforts to do a good job are seldom blocked by red tape.	1 2 3 4 5 6
16	I find I have to work harder at my job because of the incompetence of people I work with.	1 2 3 4 5 6
17	I like doing the things I do at work.	1 2 3 4 5 6
18	The goals of this organization are not clear to me.	1 2 3 4 5 6

	PLEASE CIRCLE THE ONE NUMBER FOR EACH QUESTION THAT COMES CLOSEST TO REFLECTING YOUR OPINION ABOUT IT. Copyright Paul E. Spector 1994, All rights reserved.	Disagree very much Disagree moderately Disagree slightly Agree slightly Agree moderately Agree very much
19	I feel unappreciated by the organization when I think about what they pay me.	1 2 3 4 5 6
20	People get ahead as fast here as they do in other places.	1 2 3 4 5 6
21	My supervisor shows too little interest in the feelings of subordinates.	1 2 3 4 5 6
22	The benefit package we have is equitable.	1 2 3 4 5 6
23	There are few rewards for those who work here.	1 2 3 4 5 6
24	I have too much to do at work.	1 2 3 4 5 6
25	I enjoy my coworkers.	1 2 3 4 5 6
26	I often feel that I do not know what is going on with the organization.	1 2 3 4 5 6
27	I feel a sense of pride in doing my job.	1 2 3 4 5 6
28	I feel satisfied with my chances for salary increases.	1 2 3 4 5 6
29	There are benefits we do not have which we should have.	1 2 3 4 5 6
30	I like my supervisor.	1 2 3 4 5 6
31	I have too much paperwork.	1 2 3 4 5 6
32	I don't feel my efforts are rewarded the way they should be.	1 2 3 4 5 6
33	I am satisfied with my chances for promotion.	1 2 3 4 5 6
34	There is too much bickering and fighting at work.	1 2 3 4 5 6
35	My job is enjoyable.	1 2 3 4 5 6
36	Work assignments are not fully explained.	1 2 3 4 5 6

Appendix B

Teachers' Sense of Efficacy Scale – Short Version

Teacher Beliefs		This questionnaire is designed to help us gain a better understanding of the kinds of things that create challenges for teachers. Your answers are confidential.								
<i>Directions:</i> 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 <i>current</i> ability, resources, and opportunity to do each of the following in your present position.		None at all	Very Little	Some Degree	Quite A Bit	A Great Deal				
1.	How much can you do to control disruptive behavior in the classroom?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2.	How much can you do to motivate students who show low interest in school work?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
3.	How much can you do to calm a student who is disruptive or noisy?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
4.	How much can you do to help your students value learning?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
5.	To what extent can you craft good questions for your students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
6.	How much can you do to get children to follow classroom rules?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
7.	How much can you do to get students to believe they can do well in school work?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
8.	How well can you establish a classroom management system with each group of students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
9.	To what extent can you use a variety of assessment strategies?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
10.	To what extent can you provide an alternative explanation or example when students are confused?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
11.	How much can you assist families in helping their children do well in school?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
12.	How well can you implement alternative teaching strategies in your classroom?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

Appendix C

Alternatively Certified Teacher Questionnaire

Alternatively Certified Teacher

This survey is completely anonymous. No identifiable data including IP address will be collected via this survey. There are 48 questions divided into 4 sections. You must complete the whole survey for responses to be valid. Please allow approximately 15 minutes to complete the entire survey. Responses will not be saved until you

Is teaching your second career? *

- Yes
- No

In a broad sense, why did you enter the education profession after obtaining a degree in another field? *

- Model Influences (i.e. former teacher, parent, and/or any other individual who influenced you)
- Programmatic Influences (i.e. length of teaching day/year, tuition reimbursement)
- Experiential Influences (i.e. experiences with informal teaching, coaching, or mentoring)
- Vocational Reasons (i.e. lack of fulfillment in prior job/more purpose, content-driven, always wanted to teach)

When I do a good job, I receive the recognition for it that I should receive. *

1 2 3 4 5 6
Disagree Very Much Agree Very Much

Many of our rules and procedures make doing a good job difficult. *

1 2 3 4 5 6
Disagree Very Much Agree Very Much

I like the people I work with. *

1 2 3 4 5 6
Disagree Very Much Agree Very Much

I sometimes feel my job is meaningless. *

1 2 3 4 5 6
Disagree Very Much Agree Very Much

Communications seem good within this organization. *

1 2 3 4 5 6
Disagree Very Much Agree Very Much

Job Satisfaction Survey

PLEASE CIRCLE THE ONE NUMBER FOR EACH QUESTION THAT COMES CLOSEST TO REFLECTING YOUR OPINION ABOUT IT. Responses range from (1) Disagree Very Much to (6) Agree Very Much. Your answers are completely

I feel I am being paid a fair amount for the work I do. *

1 2 3 4 5 6
Disagree Very Much Agree Very Much

There is really too little chance for promotion on my job. *

1 2 3 4 5 6
Disagree Very Much Agree Very Much

My supervisor is quite competent in doing his/her job. *

1 2 3 4 5 6
Disagree Very Much Agree Very Much

I am not satisfied with the benefits I receive. *

1 2 3 4 5 6

Raises are too few and far between. *

1 2 3 4 5 6
Disagree Very Much Agree Very Much

Those who do well on the job stand a fair chance of being promoted. *

1 2 3 4 5 6
Disagree Very Much Agree Very Much

My supervisor is unfair to me. *

1 2 3 4 5 6
Disagree Very Much Agree Very Much

The benefits we receive are as good as most other organizations offer. *

1 2 3 4 5 6
Disagree Very Much Agree Very Much

I do not feel that the work I do is appreciated. *

1 2 3 4 5 6
Disagree Very Much Agree Very Much

PLEASE CIRCLE THE ONE NUMBER FOR EACH QUESTION THAT COMES CLOSEST TO REFLECTING YOUR OPINION ABOUT IT. Responses range from (1) Disagree Very Much to (6) Agree Very Much. Your answers are completely

I find I have to work harder at my job because of the incompetence of people I work with. *

1 2 3 4 5 6
Disagree Very Much Agree Very Much

I like doing the things I do at work. *

1 2 3 4 5 6
Disagree Very Much Agree Very Much

The goals of this organization are not clear to me. *

1 2 3 4 5 6
Disagree Very Much Agree Very Much

After section 2 Continue to next section

I feel unappreciated by the organization when I think about what they pay. *

1 2 3 4 5 6
Disagree Very Much Agree Very Much

People get ahead as fast here as they do in other places. *

1 2 3 4 5 6
Disagree Very Much Agree Very Much

My supervisor shows too little interest in the feelings of subordinates. *

1 2 3 4 5 6
Disagree Very Much Agree Very Much

The benefit package we have is equitable. *

1 2 3 4 5 6
Disagree Very Much Agree Very Much

There are few rewards for those who work here. *

There are benefits we do not have which we should have. *

1 2 3 4 5 6
Disagree Very Much Agree Very Much

I have too much to do at work. *

1 2 3 4 5 6
Disagree Very Much Agree Very Much

I like my supervisor. *

1 2 3 4 5 6
Disagree Very Much Agree Very Much

I enjoy my coworkers. *

1 2 3 4 5 6
Disagree Very Much Agree Very Much

I have too much paperwork. *

1 2 3 4 5 6
Disagree Very Much Agree Very Much

I often feel that I do not know what is going on with the organization. *

1 2 3 4 5 6
Disagree Very Much Agree Very Much

I don't feel my efforts are rewarded the way they should be. *

1 2 3 4 5 6
Disagree Very Much Agree Very Much

I feel a sense of pride in doing my job. *

1 2 3 4 5 6
Disagree Very Much Agree Very Much

I am satisfied with my chances for promotion. *

1 2 3 4 5 6
Disagree Very Much Agree Very Much

I feel satisfied with my chances for salary increases. *

1 2 3 4 5 6

There is too much bickering and fighting at work. *

1 2 3 4 5 6

Disagree Very Much Agree Very Much

My job is enjoyable. *

1 2 3 4 5 6

Disagree Very Much Agree Very Much

Work assignments are not fully explained. *

1 2 3 4 5 6

Disagree Very Much Agree Very Much

Directions: 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.

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

1 2 3 4 5 6 7 8 9

Not at all A Great Deal

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

1 2 3 4 5 6 7 8 9

Not at all A Great Deal

After section 3 Continue to next section

Section 4 of 4

Teachers' Sense of Efficacy Scale (Short version): This questionnaire is designed to help us gain a better understanding of the kinds of things that create challenges for teachers. Your answers are completely

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

1 2 3 4 5 6 7 8 9

Not at all A Great Deal

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

1 2 3 4 5 6 7 8 9

Not at all A Great Deal

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

1 2 3 4 5 6 7 8 9

Not at all A Great Deal

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

1 2 3 4 5 6 7 8 9

Not at all A Great Deal

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

1 2 3 4 5 6 7 8 9

Not at all A Great Deal

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

1 2 3 4 5 6 7 8 9

Not at all A Great Deal

To what extent can you use a variety of assessment strategies? *

1 2 3 4 5 6 7 8 9

Not at all A Great Deal

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

1 2 3 4 5 6 7 8 9

Not at all A Great Deal

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

1 2 3 4 5 6 7 8 9

Not at all A Great Deal

How well can you implement alternative teaching strategies in your classroom? *

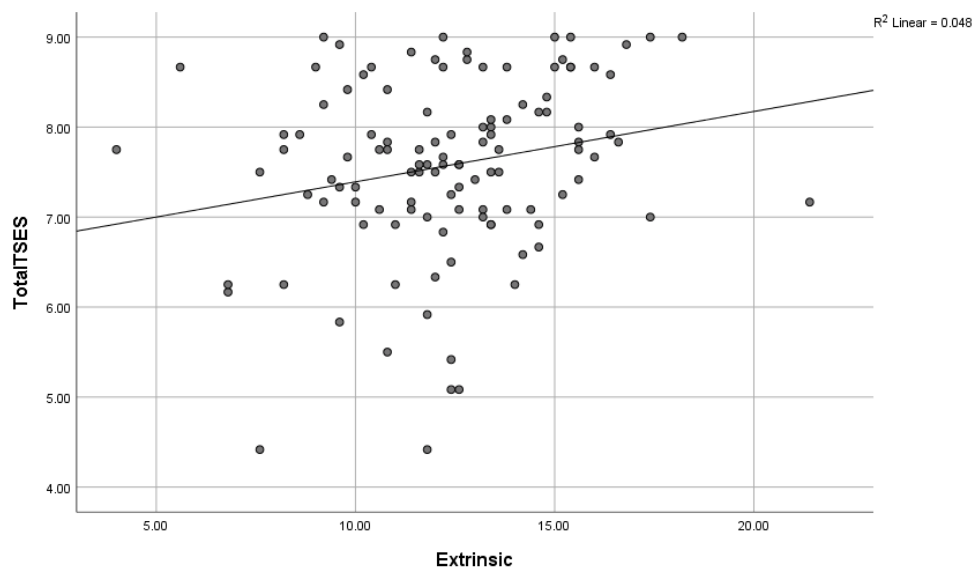
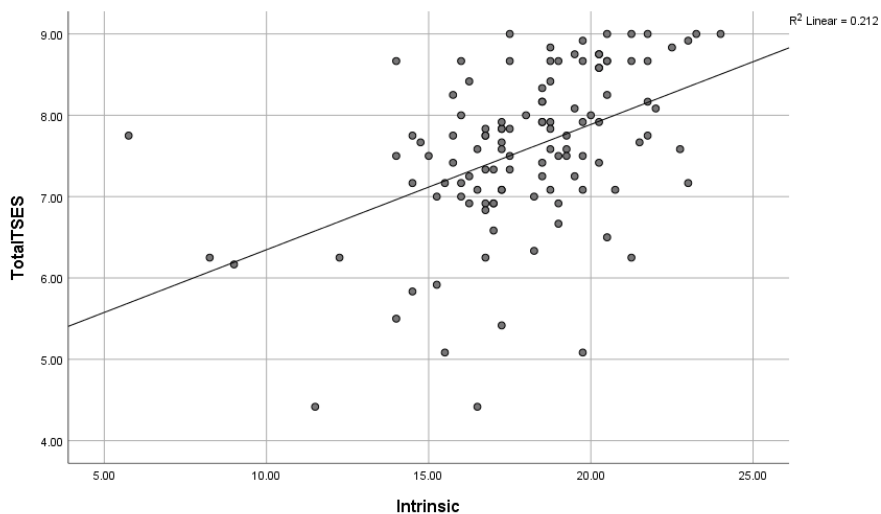
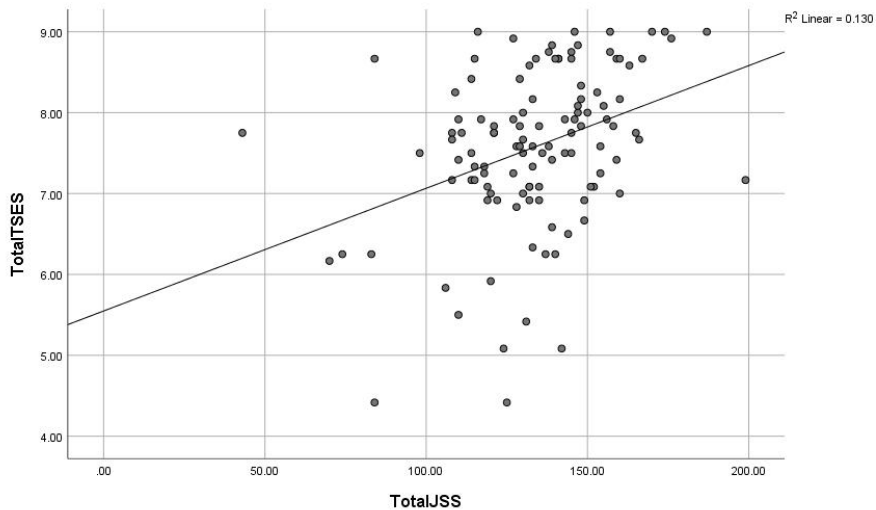
1 2 3 4 5 6 7 8 9

Not at all A Great Deal

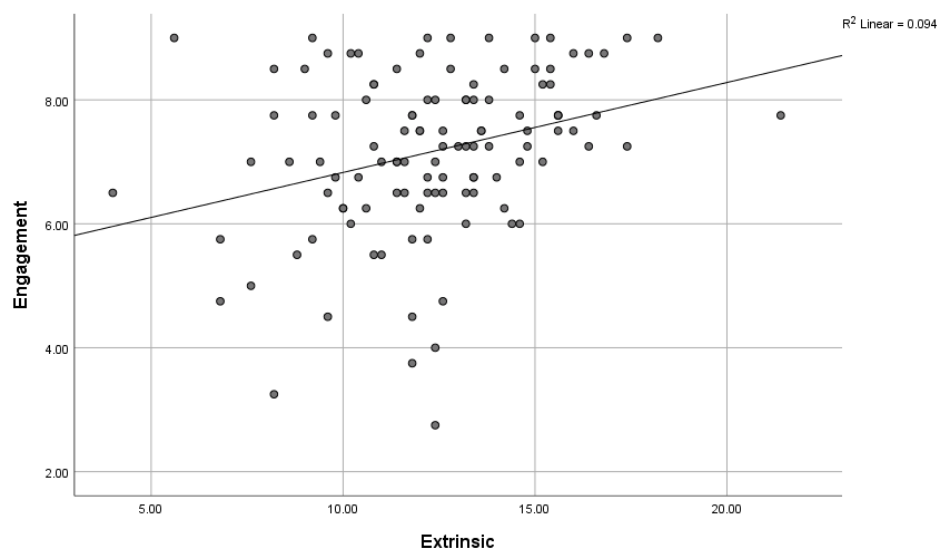
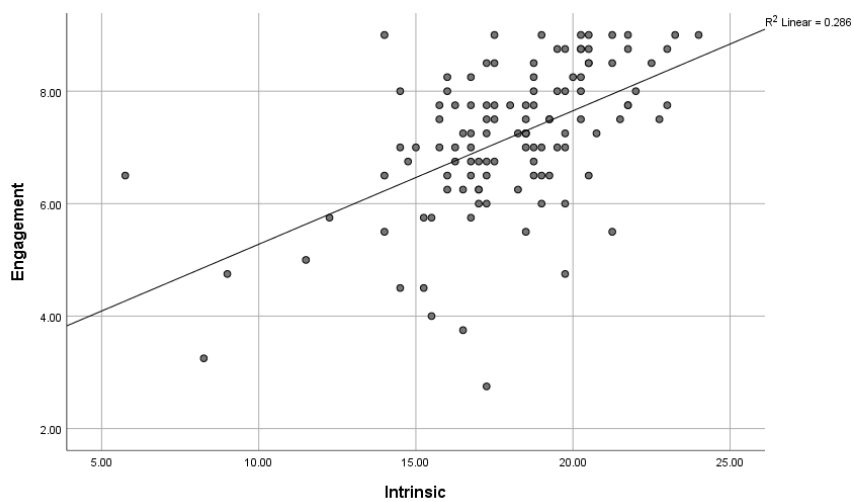
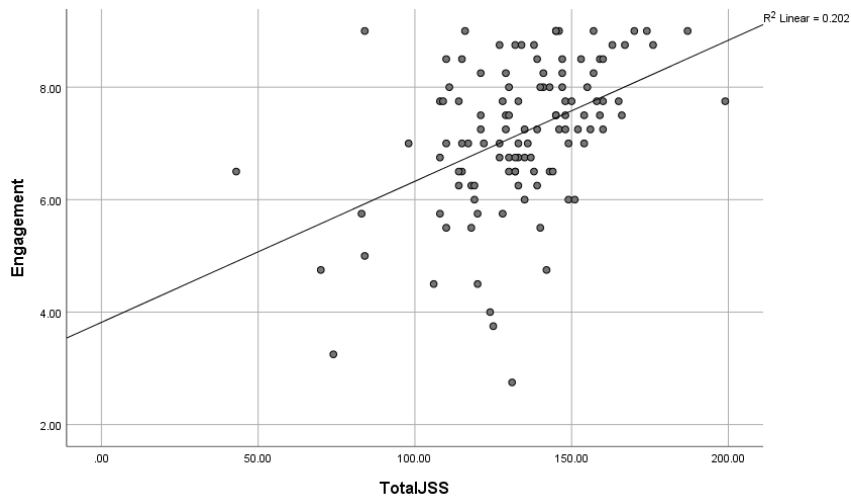
Appendix D

Frequency Scatterplots

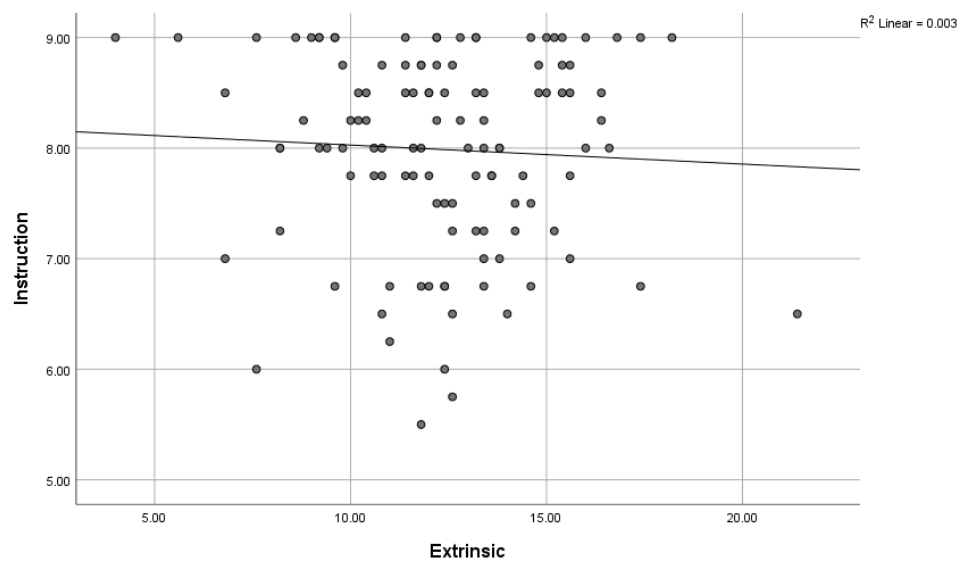
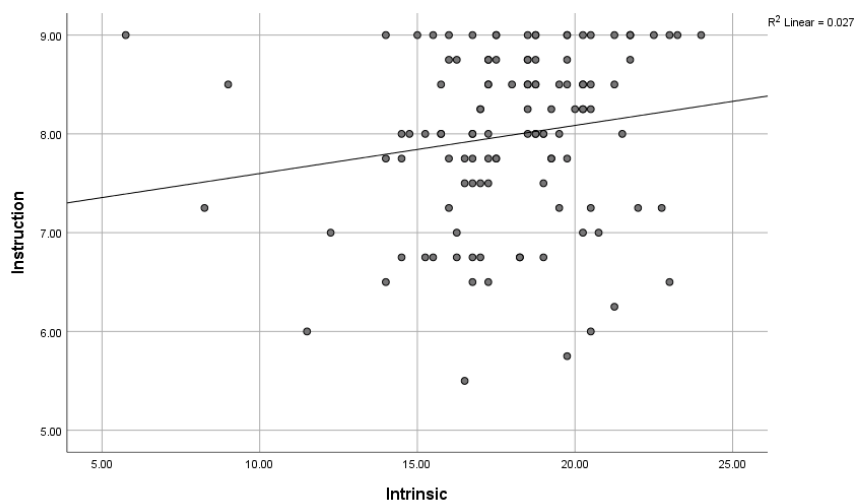
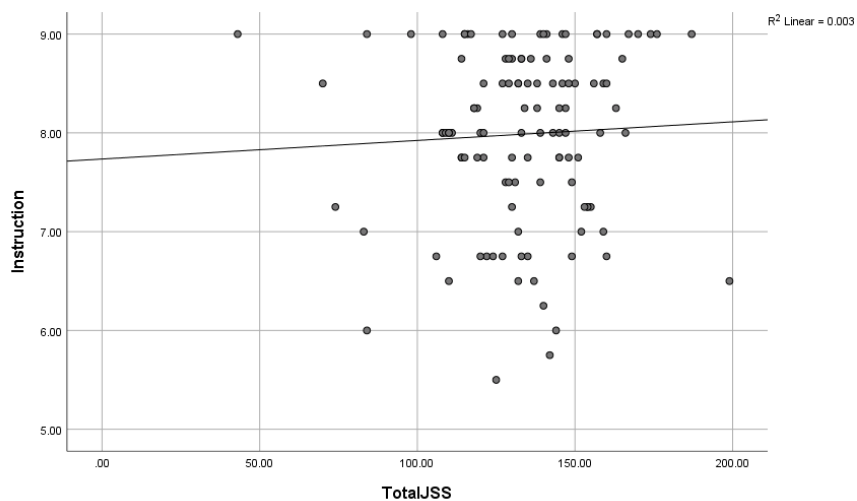
Total Self-efficacy Frequency Scatterplots



Engagement Self-efficacy Frequency Scatterplots



Instruction Subscales Frequency Scatterplots



Management Subscales Frequency Scatterplots

