Teacher Shortages: An Analysis of the Relationship Among First-Year Teacher Retention, Type of Licensure, Teaching Assignment, and Professional Learning in One Urban Central Florida School District

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TEACHER SHORTAGES: AN ANALYSIS OF THE RELATIONSHIP AMONG FIRST-YEAR TEACHER RETENTION, TYPE OF LICENSURE, TEACHING ASSIGNMENT, AND PROFESSIONAL LEARNING IN ONE URBAN CENTRAL FLORIDA SCHOOL DISTRICT

by

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A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Education in Educational Leadership in the Department of Educational Leadership and Higher Education in the College of Community Innovation and Education at the University of Central Florida
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ABSTRACT

Over 95% of states in the nation experience teacher shortages in at least one subject or certification area (Espinoza et al., 2018). Specifically, special education is acknowledged as an area with a critical shortage of teachers (Florida Department of Education, 2018; U.S. Department of Education, 2018). The purpose of this study was to investigate teacher shortages through the analysis of the relationship among first-year teachers, teacher licensure, teaching assignment, professional learning, and teacher retention. This study examined the relationship between first-year teacher retention and whether a cohort of first-year teachers remained within the same school, moved to another school within the school-district, or left the school-district and/or the profession between 2015 and 2019. This study used descriptive statistics, chi-square of independence, and cross-tabulation tables to analyze first-year teacher retention as it related to type of licensure, teaching assignment, and professional learning. The results of this study indicate that there are statistically significant differences in retention based on type of licensure \((p < .05)\) and professional learning \((p < .001)\). The results of this study could assist school-district and school level instructional leaders to design targeted programs to support groups of teachers taking into consideration their unique needs based upon practices, guidelines, and programs that are consistent with retaining first-year teachers.
To my family, thank you for always believing in me and making this dream a reality.

I love you to the moon and back.
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To be a teacher is to be a lifelong learner. Since I was a young girl, I always had an interest in becoming a teacher and completing a doctoral degree. The process of completing this dissertation was a labor of love and a lifelong goal that would not have been possible without the support and encouragement of my family and friends. I would like to thank my mom, Anne, for always instilling in me that I could accomplish anything I set my mind to and my husband, Nick, for encouraging and supporting me throughout the hours of coursework, studying, and research.

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CHAPTER ONE: INTRODUCTION

Background of the Study

School districts across the United States have been experiencing teacher shortages and struggling to meet the demand for qualified teachers dating back to the 1980s (Espinoza, Saunders, Kini, & Darling-Hammond, 2018; Rebore, 2015; Sutcher, Darling-Hammond, & Carver-Thomas, 2016). Due to a decrease in student enrollment during the 1970s, school districts across the United States were forced to lay off teachers (Rebore, 2015). This impacted university enrollment in teacher preparation programs due to limited opportunities for employment (Rebore, 2015). Therefore, when a large number of teachers retired in the 1980s there was an inadequate pool of teachers to fill the vacancies (Rebore, 2015). More teacher layoffs occurred in response to the Great Recession of 2008 and school districts experienced challenges hiring qualified personnel as the economy recovered (Garcia & Weiss, 2019; Sutcher, Darling-Hammond, & Carver-Thomas, 2016). Between 2008 to 2012 enrollment in teacher preparation programs dropped resulting in a decline of qualified teachers entering the profession (Sutcher et al., 2018).

Teacher shortages have been increasing across the United States, reaching critical shortages in several teaching fields (Podolsky, Kini, Bishop, & Darling-Hammond, 2016; Sutcher, Darling-Hammond, & Carver-Thomas, 2016; U.S. Department of Education, 2017). During the 2017-2018 school year, public schools in 48 states reported teacher shortages in mathematics; 46 states reported shortages in special education; 43 states reported shortages in science; and 41 states reported shortages in foreign language (U.S. Department of Education, 2017). According to Sutcher and colleagues (2016), the four factors driving teacher shortages
included a decline in teacher preparation programs, regulations of student-teacher ratios, increasing student enrollment, and high teacher attrition. The researchers estimated that 316,000 teachers will be needed annually by the year 2025 (Sutcher et al., 2016).

Moreover, according to the teacher shortage areas nationwide reported by the U.S. Department of Education Teacher Office of Postsecondary Education (2017), the demand for special education teachers has been an area of critical need that dates back to the inception of the annual report in the 1990s. Since the 2013-2014 school year, over 95% of states have reported teacher shortages in special education (U.S. Department of Education, 2018). Further, it has been suggested that it is likely that general education teacher turnover is associated with the percentage of students with disabilities educated in a general education classroom (Gilmour & Wehby, 2019; Thornton, Peltier, & Medina, 2007). With continuous shortages of teachers in the area of special education, schools are struggling to find prepared teachers to provide services for students receiving special education services (Brownell, Bishop, & Sindelar, 2005; Esposito & Lal, 2005; McLeskey, Tyler, & Flippin, 2004).

A meta-analysis completed by Hattie (2009) found that teachers had the largest average effect on student learning out of the six major categories of contributors (student, home, school, teacher, curricula, and teaching). The Individuals with Disabilities Education Act of 2004 (IDEA) requires that students with disabilities have access to a free and appropriate public education (FAPE). Further, the Every Student Succeeds Act of 2015 (ESSA) requires that all students, including those who are disadvantaged and high-needs, have access to high academic standards by an effective teacher (U.S. Department of Education, n.d.). According to ESSA (2015), states must have a plan in place to address inequities that result in the aforementioned
students being instructed by ineffective teachers at a disproportionate rate. In order to adequately meet the requirements set forth in these legislations, there must be qualified, effective general education and special education teachers in every school and classroom (Brownell et al., 2005; McLeskey et al., 2004; Thornton et al., 2007).

Although there were historical contexts that impacted teacher shortages in the United States, there are ongoing factors that continue to contribute to the issue. One of the major contributors to the teacher shortage issue is teacher attrition, or teacher turnover (Carroll, 2007; Espinoza et al., 2018; Ingersoll, 2001; Sutcher, et al., 2016). Approximately 90% of the demand for teachers is attributed to teachers leaving the field with about 66% of teachers leaving for reasons apart from retirement (Espinoza et al., 2018). According to Guha, Hyler, and Darling-Hammond (2016), research indicates that 19% to 30% of beginning teachers leave the profession within their first five years. However, research suggests that teachers typically require one to three years of teaching experience before making notable gains in teaching quality (Kukla-Acevedo, 2009; Rivkin et al., 2005). Additionally, teachers with inadequate, or incomplete, preparation leave the profession at three times the rate of those who have a complete preparation experience (Guha et al., 2016).

One response to the teacher shortage problem is to recruit teachers from a broader pool of applicants (Florida Department of Education, 2019a; U.S. Department of Education, 2004). Alternative certification pathways allow individuals from different career backgrounds with at least a bachelor’s degree to transition into teaching (U.S. Department of Education, 2004). Individual states regulate the alternative pathways and requirements for certification of the non-traditional teachers (U.S. Department of Education, 2004). Every state in the United States and
the District of Columbia offer a non-traditional route to licensure (National Association for Alternative Certification, 2019).

**Statement of the Problem**

Over 95% of states in the nation experience teacher shortages in at least one subject or certification area (Espinoza et al., 2018). Specifically, special education is acknowledged as an area with a critical shortage of teachers (Florida Department of Education, 2018; U.S. Department of Education, 2018). In response to teacher shortages and the decline in teacher preparation programs, every state in the United States and the District of Columbia have determined alternative pathways to teacher certification (National Association for Alternative Certification, 2019). In Florida, there are two licenses a teacher can obtain: renewable, professional licensure; and non-renewable, temporary licensure (Florida Department of Education, 2019b). Although there is literature to support the roles of traditional or alternative pathways to education and professional learning on teacher retention (Aragon, 2016; Espinoza et al., 2018; Sutcher et al., 2016), states across the nation continue to struggle with retaining teachers beyond their first years. Therefore, the problem studied was retention of first-year teachers based on type of certification, teaching assignment, and professional learning.

**Purpose of Study**

The purpose of this study was to examine the relationship among first-year teacher retention, type of licensure, teaching assignment, and professional learning. Specifically, this study sought to determine first-year teacher retention based upon whether a cohort of first-year
teachers remained at their same school, moved to another school within the same school district, or left the school district or the profession from year to year between 2015 to 2019.

**Significance of the Study**

It is estimated that the national cost of public school teacher turnover could amount to approximately $7.3 billion a year (National Commission on Teaching America’s Future, 2007). At the state level it is estimated that teacher attrition costs states between $1 billion and $2.2 billion a year (Ingersoll & Perda, 2011). While the estimated costs of loss differ depending on the calculation method, it is evident that teacher attrition is costly to both the individual states and the nation. Along with the fiscal impact, there is the impact of teacher quality on student achievement. Teacher attrition adds an extra stressor on school resources and creates a continuous flow of less experienced teachers in and out of the classroom (Carver-Thomas & Darling-Hammond, 2017; Guha, Hyler, & Darling-Hammond, 2016; Ingersoll & Strong, 2004). Considering the costs of teacher attrition, funds utilized by school districts to ensure meaningful and effective support in areas shown to impact teacher retention could result in not only financial savings but could positively impact student academic success as well (Carver-Thomas & Darling-Hammond, 2017; Guha, Hyler, & Darling-Hammond, 2016; Kukla-Acevedo, 2009; Rivkin et al., 2005; Watlington, Shockley, Guglielmino, & Felsher, 2010).

This study contributes to the current literature on first-year teacher retention, specifically as it relates to stayers, movers, and leavers (Goldring, Taie, & Riddles, 2014). Further, by determining whether statistically significant relationships exist among retention, type of licensure, teaching assignment, and professional development, targeted programs may be
developed to support groups of teachers based on their unique needs. This study sought to provide conclusions and recommendations to be used to support school district leaders and school level administrators in determining the practices, guidelines, and programs that are consistent with retaining first-year teachers.

**Definition of Terms**

For the purpose of this investigation, terms and phrases are defined below to provide consistency and clarity. The subsequent terminology is specific to the literature surrounding special education and beginning teacher retention.

**Alternative Certification or Preparation:** Teachers who obtain temporary licensure through non-traditional teacher preparation programs (U.S. Department of Education, 2004). Alternative certification and preparation programs were not explored in this study and therefore not distinguished further for the purpose of this study.

**Attrition:** The percentage of teachers who choose to leave the profession and do not return to teaching (Billingsley, 2004).

**Beginning Teacher:** The teacher’s first years, year one through year three, of teaching after his or her qualification as a teacher (Ronfeldt & McQueen, 2017). This researcher utilized the term beginning teacher, but additionally used the phrase first-year teacher as a synonym.

**Every Student Succeeds Act of 2015:** A reauthorization of the Elementary and Secondary Education Act enacted to provide equal educational opportunities for all students (Every Student Succeeds Act, 2015).
General Education Teacher: Teachers who instruct students in a general education classroom and are certified for the subject area or grade level band being taught.

Leavers: Teachers who left their school district or the profession (Goldring et al., 2014).

Movers: Teachers who continued teaching but left their current school to move to a different school within the same school district (Goldring et. al, 2014).

Professional Certification or Licensure: Florida’s Educator Certificate in which candidates must have completed a state-approved teacher preparation program (Florida Department of Education, 2019b). The Professional Florida Educator’s Certificate is renewable and valid for five school years (Florida Department of Education, 2019b).

Professional Learning: Structured learning opportunities for teachers resulting in changes in teacher practice and thereby improvement in student learning outcomes (Darling-Hammond et al., 2017, p. v). For the purpose of this study, professional learning is delimited to only experiences provided by the school or school district.

Retention Rate: Percentage of teachers who remained in their school from one academic school year to the next (Lochmiller, Sugimoto, & Muller, 2016).

Special Education Teacher: Teachers who provide direct instruction for students with learning, emotional, mental or physical disabilities and who have an individual education plan. Special education teachers may provide instruction in a variety of settings such as the general education classroom, resource setting, and the self-contained setting (Bureau of Labor Statistics, 2019).

Stayers: Teachers who remain at the same school from one academic school year to the next (Goldring et al., 2014).
Teaching Assignment: Teaching a general education caseload or special education caseload.

Temporary Certification or Licensure: Florida’s Educator Certificate in which candidates must have completed a bachelor’s degree or higher in a subject area or a teacher preparation program outside of the state of Florida and are teaching in Florida while concurrently pursuing the remaining qualifications of a Professional Florida Educator’s Certificate (Florida Department of Education, 2019b). A Temporary Certificate is valid for three years and is non-renewable. (Florida Department of Education, 2019b).

Teacher Shortage: The insufficient quantity of qualified professionals willing to provide their teaching services (Sutcher et al., 2016).

Teacher Turnover: Teachers not teaching at their same school from one academic year to the next academic year (Ingersoll, 2001).

Conceptual Framework

There are many contributors to the teacher shortages in the United States, one of the major contributors being teacher retention, specifically of beginning teachers. First-year teacher retention is impacted by several factors, such as teacher qualifications, teacher preparation and teacher support. There are state and federal policies as well as human resource initiatives to maximize teacher retention.

Bolman and Deal (2017) developed the four-frame model as a way for managers and leaders to view organizations through different lenses in order to make sense of organizational decisions as well as analyze opportunities and disadvantages related to these decisions. The four-
frame model was conceptualized as a way to analyze situations from more than one perspective which allows organizations and leaders to develop alternative assumptions and interventions (Bolman & Deal, 2017). The four frames include the structural, human resources, political, and symbolic frames (Bolman & Deal, 2017). This study investigates how three of these frames (structural, political and human resource) may influence teacher retention as measured by the outcome of stayers, movers, and leavers. The conceptual framework for this study includes structural framework, teacher shortages, federal and state policy, human resource initiatives, teacher retention, types of licensure, and professional learning.

**Research Questions**

The following research questions guided this study to determine to what extent there was a relationship among first-year teacher retention, type of licensure, teaching assignment, and professional learning.

**Research Question 1**

In what ways do first-year general education and special education teachers differ in the type of licensure they hold (i.e., professional or temporary)?

**Research Question 2**

In what ways do first-year general education and special education teachers differ in terms of the amount of professional learning hours completed through their school or the targeted school district based on their type of licensure?
Research Question 3

In what ways does first-year teacher retention differ by type of licensure, teaching assignment, and professional learning experiences?

Research Question 4

How and in what ways do the factors influencing retention interact with one another?

Delimitations

The delimitations used by the researcher served to gain a better understanding of the relationship among first-year teacher retention; type of licensure, renewable professional and non-renewable temporary; teaching assignment, general education and special education; and professional learning. The delimitations focused on limiting the scope and defining boundaries, being that studies in behavior or social sciences frequently have variables that could be impacted by, “time, location, populations, or environment” (Lunenburg & Irby, p. 134, 2008).

1. The study was delimited to traditional schools within the targeted school district. Non-traditional schools such as private, online, alternative, and charter schools were excluded.

2. The study was delimited to K-12 public schools.

3. Teaching assignment was delimited to general education and special education. It does not further delimitate the assignment by grade level, content area, or self-contained special education teaching assignments.
4. Professional learning was delimited to opportunities provided by the school or targeted school district. Opportunities outside the targeted school district such as advanced degrees or professional conferences were not included.

5. Professional learning hours were delimited to hours completed during the 2015-1016 school year.

Limitations

Based on the design of this study, limitations outside the control of the researcher must be recognized. Those limitations include:

1. The population sample is from one, large, urban school district in Central Florida; therefore, results may not be generalizable across other school districts within Florida or other states. Moreover, the data may not be generalizable to rural school districts.

2. Extraneous variables that may not be accounted for but could impact teacher retention include: school climate, administrative support, testing and accountability pressures, teacher compensation, and poverty level of the school.

Assumptions

This study functioned under the following assumptions:

1. Due to the constraints of extant data being provided, it will not be possible to follow up with teachers who left the school district to determine whether they left the profession. Therefore, it was assumed that teachers who left the school district left the profession.

2. It was assumed that if a teacher worked at the same school during the 2015-2016 school year and the 2019-2020 school year that they remained at their same school.
Organization of the Study

This study is organized into five chapters. Chapter 1 presented an overview of the study which included background on the study, problem statement, purpose statement, significance of the study, definitions of terms, conceptual framework, research questions, limitations, delimitations, and assumptions of the study. Chapter 2 provides a review of the relevant literature and research related to this study. Chapter 3 describes the methodology utilized in this analysis and chapter 4 presents the findings and analysis of the data. Chapter 5 provides a summary of the analysis, implications for practice, and recommendations for future research.
CHAPTER TWO: LITERATURE REVIEW

Introduction

This chapter presents the rationale for conducting research on the relationship among teacher licensure, teaching assignment, professional development, and retention of beginning teachers. Retention of beginning teachers has continuously been studied since the 1980s yet beginning teacher retention continues to be a struggle for many schools (Ingersoll, 2001). Type of preparation program, teaching assignment, and professional development are acknowledged as aspects contributing to teacher retention. This researcher sought to contribute to the current body of literature through identifying the combined impact of these variables.

The subsequent review of the literature represents the literature relevant to this study, specifically, teacher shortages as it relates to teacher retention, type of licensure, and professional learning. Bolman and Deal’s (2017) four-frame theory was used as a framework to organize the review of literature and analyze beginning teacher retention. Specifically, Chapter 2 is organized into three sections: (a) structural frame, (b) political frame, and (c) human resource frame.

To complete this review of the literature a data search was compiled through the University of Central Florida Library system. The Internet was utilized to locate websites for the literature review through professional literature databases. The databases included: Education Resources Information Center (ERIC), EBSCOhost: Professional Development Collection, ProQuest Social Science, Science Direct, Web of Science, Taylor and Francis, National Center for Education Statistics, and ProQuest Dissertation. The key words used to complete the search of literature included: teacher retention, beginning teacher, teacher certification, alternative teacher certification, professional development, and inservice education. These key words were
used generally and with the key word “special education”. Research from the Internet included in this study were obtained from websites such as Florida Department of Education, US Department of Education, Federal Register, and National Association for Alternative Certification. Information relevant to the study was included and referenced.

The Structural Frame

One of the primary functions of the structural frame is to provide a blueprint for pursuing the strategic goals of the organization through expectations and interactions among the individuals within and outside of the organization (Bolman & Deal, 2017). The structural frame functions under the assumption that organizations exist to achieve the goals set forth in strategic plans and that when performance suffers from structural flaws problem solving and restructuring are necessary (Bolman & Deal, 2017). According to Bolman and Deal (2017) the structural perspective contends for placing individuals in the right roles in order to support and accommodate both the collective goals of the organization and individual differences.

Within the structural framework, Bolman and Deal (2002) consider school district and school-based leaders to be a type of “social architect” that is responsible for the development of policies and procedures, hiring of Personnel, guidance of personnel, and ultimately shaping a structure, school or school district, that functions optimally (p.84). One of the facets of a successful organization, school district or school, is “design[ing] groups for success rather than failure” (Bolman & Deal, 2002, p.85). According to Ingersoll (2001), one of the fundamental causes of inadequate performance of schools is the inability to hire qualified instructional staff to meet the needs of the school. Therefore, in order to have schools performing optimally, it is
critical to hire and retain qualified teachers (Hattie, 2009; Ingersoll, 2001; Podolsky, Kini, Bishop, & Darling-Hammond, 2016).

Teacher Shortages

School districts and school administrators continue to experience difficulty hiring qualified teachers for positions, especially in specific fields such as special education, mathematics, science, and bilingual education/English language development (Cowan, Goldhaber, Hayes, & Theobald, 2016; McVey & Trinidad, 2019; Sutcher et al., 2016). According to Sutcher and colleagues (2016), every year approximately 250,000 teacher vacancies are needed to be filled. The teacher shortage dilemma is multifaceted: an inadequate production of new teachers, the return of previously cut positions after the end of the Great Recession, and attrition of current teachers; in other words, supply and demand (Espinoza et al., 2018; Sutcher et al., 2016).

In the 1970s, many school districts endured dramatic decreases in student enrollment and were forced to lay off a substantial number of teachers (Rebore, 2015). This impacted university enrollment of students in teacher preparation programs due to the bleak opportunities for obtaining a career in education (Rebore, 2015; Glazerman, Seif, & Pedersen, 2008). However, a large number of teachers retired in the 1980s without the number of prospective teachers necessary to fill the positions (Rebore, 2015). The demand for teachers has been increasing for the since the 1990s and vacancies continue to be problematic for administrators (Brownell, Bishop, & Sindelar, 2018; Rebore, 2015; Thorton, Peltier, & Medina, 2007).
Recruitment efforts are fundamental in combating teacher shortages (Brownell, Bishop, & Sindelar, 2018; Thornton, Peltier, & Medina, 2007; Brownell, Hirch, & Seo, 2004). Recruitment strategies include, but are not limited to: alternative teacher preparation programs, aggressive recruitment through financial incentives, use of human capital theory in which educators are grown as residents to teachers, and building partnerships between teacher preparation programs and local schools or school districts (Brownell, Bishop, & Sindelar, 2018; Brownell, Hirch, & Seo, 2004; Rebore, 2015; Thornton, Peltier, & Medina, 2007).

Alternative preparation programs were created in the 1980s in response to the shortage of teachers (Mulvihill & Martin, 2019; Pazyura, 2015). According to the National Center for Education Statistics (2018), during the 2015-2016 school year approximately 18% of teachers had entered the profession through alternative pathways. Additionally, to meet the demands of the teacher demands many states expanded emergency licensure to allow for the hiring of untrained teachers (Aragon, 2016; Sutcher et al., 2016).

Teacher Shortages in Florida

In accordance with Florida statutes, each year the Florida State Board of Education identifies and reports critical teacher shortage areas (Florida Department of Education, 2019c). Shortage areas are identified as areas in which considerable proportions of teachers are not certified in the field in which they are hired to teach (Florida Department of Education, 2019c). The intent of identifying critical shortage areas is to determine the anticipated need of classroom teachers for specific subject areas in the upcoming school year. The critical teacher shortage areas in Florida for the 2019-2020 school year include: science-general, English, mathematics,
English for Speakers of Other Languages (ESOL), science-physical, reading, technical education, and exceptional student education (ESE; Florida Department of Education, 2019c).

According to the Florida Education Association (FEA; 2019), Florida has a critical and growing teacher shortage. In August 2018, Florida school districts had 4,000 advertised teaching vacancies, an increase of 1,000 vacancies from 2017 and an increase of 1,600 from 2016; by January 2019, halfway through the school year, more than 2,000 teaching vacancies remained unfilled (FEA, 2019).

Teacher Shortages in Special Education

According to the National Center for Educational Statistics (NCES, 2019b), during the 2017-2018 school year, students receiving special education services accounted for 14 percent of total enrollment in the United States. Special education continues to be one of the critical teacher shortage areas in the United States and is expected to have an increased demand in the next decade (Billingsley & McLeskey, 2004; Brownell et al., 2018; McLeskey et al., 2004). While the intent of the No Child Left Behind (NCLB) Act of 2001 was to increase the number of highly-qualified teachers, it may have inadvertently exacerbated the teacher shortage, especially in special education (Billingsley & McLeskey, 2004; Brownell et al., 2018). For example, special education teachers at the secondary level would be required to be considered highly-qualified in special education and the content areas in which they teach (Billingsley & McLeskey, 2004). In response, several states, including Florida, offered alternatives routes to certification such as passing subject area exams rather than taking coursework or field experience in special education (Billingsley & McLeskey, 2004; Hollo, Floyd, & Brigandi, 2019).
During the 2013-2014 school year 49 states within the United States reported shortages of special education teachers (National Coalition on Personnel Shortages in Special Education and Related Services, 2016). Teacher shortages in the area of special education date back to the inception of the *Education for All Handicapped Children Act* of 1975 which was later reauthorized as the *Individuals with Disabilities Act* of 2004 (Billingsley & Bettini, 2019). Since the requirement of this law mandated that public schools educate all students, including those with disabilities, it required an influx and the need for special education teachers continued to increase (Billingsley & Bettini, 2019).

**Teacher Shortages in Special Education in Florida**

Based on the 2019-2020 Florida Department of Education’s (2019c) Critical Teacher Shortage Area Report, special education teacher shortages accounted for 26% of the instructional vacancies in the state and approximately 12% of special education teachers are not certified in the appropriate field. Ingersoll & Perda (2009) found that in the secondary setting, schools are three to four times more likely to have difficulty hiring for vacancies in special education and other critical shortage areas.

Brownell, Smith, McNellis, and Miller (1997), investigated special education teacher turnover in the state of Florida through a study using 93 randomly selected special education teachers who did not return after the 1992-1993 school year. The results indicated that the 24.7% of special education teachers who left the field accepted a position in other areas of education (Brownell et al., 1997). The data indicated two prevalent groups: disgruntled and non-disgruntled; disgruntled teachers reported leaving due to stress from not feeling supported and
unprepared whereas non-disgruntled teachers reported leaving due to outside influences such as certification requirements, inadequate pay, or position being absorbed (Brownell et al., 1997).

One solution to the critical teacher shortage areas, including special education, was the creation of the Florida Critical Teacher Shortage Program (FCTSP) in 1984 by the Florida legislature (Feng & Sass, 2015; Feng, Sass, & Society for Research on Educational Effectiveness, 2015). Each year, the Florida State Board of Education was required to identify and report the critical teacher shortage areas based on vacancies within the discipline, positions filled by teachers without adequate certification in the relevant field, and projected supply of graduates from teacher preparation programs in the relevant field (Feng & Sass, 2015; Feng et al., 2015). The FCTSP had three major components: tuition reimbursements, loan repayments, and bonus programs (Feng & Sass, 2015; Feng et al., 2015). Analysis of the impact of this program suggest that FCTSP participants, both traditionally trained teachers and alternatively certified teacher, tended to have lower value-added measure scores than non-participants, have less teaching experience, teach lower achieving/less well-behaved students, and be more likely to switch schools (Feng & Sass, 2015; Feng et al., 2015). However, FCTSP participants were more likely than non-participants to remain teaching in the public school setting. (Feng & Sass, 2015; Feng et al., 2015). Specifically, a 3.4% increase in wages resulted in an average of 11.1% reduction of teachers of critical shortage areas leaving the profession (Sims & Education Datalab, 2018).
The Political Frame

Bolman and Deal (2017) described the political frame as being comprised of coalitions formed of different individuals and interest groups. One of the primary functions of the political frame is to make important decisions regarding scarce resources related to the goals of the organization (Bolman & Deal, 2017). In government, organizational goals are set by the legislature and elected officials (Bolman & Deal, 2017). In this aspect, constituents are comprised of different individuals and interest groups with different values, beliefs, information, and interests (Bolman & Deal, 2017). The legislators, or elected officials, must make decisions surrounding the resources available based upon the individual and group needs; specifically, how the needs are articulated, and how groups mobilize power to get what want (Bolman & Deal, 2017).

When describing the political frame, Bolman and Deal (2017) discuss how “the interplay of different interest and scarce resources inevitably lead to conflict between individuals and groups” (p.51). While Bolman and Deal (2017) are referring to politics at the school or school district level, this can also be applied to the intention of federal and state policies in how they are enacted, funded, and the success of the legislation in carrying out its goal.

Federal and State Policy

Education is not explicitly referenced in the United States Constitution and therefore has typically been considered the responsibility of the individual states; however, the federal government has been involved considerably in the education system, specifically through providing funds to support programs and services (Rebore, 2015). Dating back to the 1960s, the
federal government has shown an interest in social equity through the promotion of racial equity, protection of the rights of students with disabilities, and assisting students with limited English proficiency (Gallagher, Goodyear, Brewer, & Rueda, 2012).

**Elementary and Secondary Education Act of 1965**

As a former teacher, Lyndon B. Johnson believed that access to a quality education was the foundation of becoming a productive member of society (Paul, 2016). Therefore, as part of Lyndon B. Johnson’s *War on Poverty*, the *Elementary and Secondary Education Act* (ESEA) of 1965 represented the commitment of the United States government to quality and equality of the educational system with a focus on low-performing achievement subgroups (Brenchley, 2015; National Center for Learning Disabilities, 2019). This legislation was part of the civil rights law in that it sought to ensure every child, regardless of race, income, socioeconomic status, background, or zip code had the opportunity to make their future aspirations attainable (ESEA, 1965). *ESEA* provided financial resources from Federal funds in order to improve elementary and secondary public education (ESEA, 1965). The *Elementary and Secondary Education Act* of 1965 must be reauthorized by Congress every five years.

A primary focus of *ESEA* (1965) was to reduce the achievement gap, and therefore put an emphasis on high standards and accountability. One way the law attempted to do this was through Federal funding to public schools to be able to provide professional development, instructional resources, resources to promote educational programs, and to promote parental involvement (ESEA, 1965). Students eligible for Title I services were typically served in a pull-
out classroom (Hunt Institute, 2016). Decisions about these resources were delegated to the local
governments by the states.

The original legislation contained six sections: Title I – financial assistance to local
educational agencies for the education of children of low-income families, Title II – school
library resources, textbooks, and other instructional materials, Title III – language instruction for
limited English proficient and immigrant students, Title IV – educational research and training,
Title V – grants to strengthen state departments of education, and Title VI – general provisions.
Title I of *ESEA* (1965) had the largest financial component which provided financial assistance
for the education of children from low income families. Between 1965 and 1980 the *Elementary
and Secondary Education Act* (1965) was amended four times providing more precise
requirements about the use of Title I funds in order to ensure the funds were being used directly
to support and assist students who were disadvantaged (Hunt Institute, 2016). For the *Elementary
and Secondary Education Act* (1965), the 1980s were known as the “excellence agenda” due to
an enhanced focus on increased rigor for all students (Hunt Institute, 2016, p. 1). With
continuous and rising deficits of student achievement and overall unsatisfactory levels of student
achievement, a bigger focus was placed on rigorous educational expectations which would
eventually lead to a shift in education towards standards-based reform and adequate yearly
progress or AYP. (Hunt Institute, 2016, p.2).

**Improving America’s School Act of 1994**

During the Clinton administration, the *Elementary and Secondary Education Act* of 1965
was reauthorized as the *Improving America’s Schools Act* of 1994 (IASA; Riley, 1995).
According to Education Week (1994), at the time it enacted the most significant program changes since ESEA was first passed in 1965. IASA amended aspects in four major areas: high standards for all students, professional development related to the implementation of high standards, flexibility to allow local reform while maintaining accountability, and close partnerships with families (Riley, 1995). IASA required states to ensure that students eligible for Title I services were taught inclusively rather than being provided pull out services and provide evidence that learning goals and curricular opportunities were the same for all students (Hunt Institute, 2016). Additionally, local educational agencies (LEA) were required to identify schools that were not making AYP and take action to make improvements. While states were granted more decision-making authority and flexibility for adopting curriculum standards and accountability measures, the variation of implementation of standards-based reform between states ultimately led to continued educational disparities (Hunt Institute, 2016).

No Child Left Behind Act of 2001

Following the Improving America’s School Act of 1994, the Bush administration reauthorized the Elementary and Secondary Education Act of 1965 to maintain standards-based reforms and place an increased emphasis on accountability (Hunt Institute, 2016; Klein, 2015). The purpose of the No Child Left Behind Act of 2001 (NCLB) was “to close the achievement gap with accountability, flexibility, and choices so that no child is left behind” (NCLB, 2001, p.1). This was to be accomplished through “high-quality academic assessments, accountability systems, teacher preparation and training, curriculum, and instructional materials are aligned with challenging State academic standards so that students, teachers, parents, and administrators
can measure progress against common expectations for all student academic achievement” (NCLB, 2001, pp.15-16). In order to ensure adequate academic progress for students, NCLB required schools to provide instruction by highly qualified instructional staff members (NCLB, 2001, p. 29).

The goal of the Bush administration was for all students “meet or exceed the State’s proficient level of academic achievement on the State’s assessments” by the year 2013-2014 school year (NCLB, 2001, p. 23). Schools and school districts receiving federal funds were required to annually assess students in grades 3-8 and once more in high school in, at minimum, mathematics and reading or language arts (NCLB, 2001). Test-based accountability measures were to be analyzed, in summation and desegregated by subgroup, to determine progress being made towards annual yearly progress (AYP) as determined by the individual States (Hunt Institute, 2016; Klein, 2015; NCLB, 2001). Additionally, NCLB required the states to designate federal funds, for programs such as free tutoring or allowing students to transfer to a better-performing public school in the same school district, for schools that did not meet AYP (Klein, 2015).

Every Student Succeeds Act of 2015

Following the No Child Left Behind Act of 2001, the Obama administration reauthorized the Elementary and Secondary Education Act of 1965 as the Every Student Succeeds Act of 2015 (ESSA) which continued to place an emphasis on accountability, but provided more power to the states (Klein, 2016). States were given more flexibility in the goals associated with accountability measures (Klein, 2016; U.S. Department of Education, n.d.). States are able to
select their own long term, short term, and interim goals addressing academic proficiency, English language proficiency, graduation rates, and other accountability measures which must be submitted to the Education Department.

Schools must continue to hold schools accountable for student achievement, including a plan for the identification of underperforming students (ESSA, 2015). Accountability measures must include academic achievement, academic progress, English language proficiency, and high school graduation (ESSA, 2015). States may choose their own fifth school quality or student success accountability measure (ESSA, 2015). ESSA of 2015 continues to place an emphasis on the achievement of disadvantaged students. ESSA of 2015 classifies disadvantaged students into four categories: students in poverty, minority students, students who receive special education services, and students with limited English language skills. Additionally, states must identify schools that are a) the lowest performing schools in the state and b) where certain student groups are consistently underperforming (ESSA, 2015). Once schools are considered to be struggling school districts are responsible for creating a plan for improvement (ESSA, 2015).

Florida Senate Bill 7070

With growing teacher shortages in Florida (FEA, 2019), state legislators proposed a new bill which included a change in requirements for teacher certification and teacher bonuses. The Governor of Florida approved Senate Bill 7070 (2019) which eliminated the one-year timeframe associated with passing a mandatory teacher certification test, the general knowledge exam, and removed the prohibition of employment for individuals who have not met this specified requirement within their first year teaching. Senate Bill 7070 extends the requirement of passing
the general knowledge test from one year to three years, the duration of a temporary teaching certificate. The bill allows the State Board of Education to extend the temporary teaching certificate an additional two years if requirements were not met due serious illness or injury, military service of the applicant’s spouse or other extenuating circumstances (SB7070, 2019). Additionally, Senate Bill 7070 (2019) allows the State Board of Education to extend the temporary certificate for one year if the certificate holder is rated as “effective” or “highly effective” based on the student learning growth formula and allows the department to renew a temporary certificate for two additional years with the approval of the Commissioner of Education (SB7070, 2019, p. 38). The bill also “requires school districts to provide test support information to individuals who do not meet passing scores on any subtest” (SB7070, 2019, p.36).

Senate Bill 7070 (2019) also renamed the Florida Best and Brightest Teacher Scholarship Program as the Florida Best and Brightest Teacher Program. There are three Best and Brightest Teacher programs: recruitment, retention, and recognition (SB7070, 2019). The recruitment bonus is a one-time bonus of up to $4000 for newly hired K-12 teachers who are considered a “content expert, based on criteria established by the department, in mathematics, science, computer science, reading, or civics” (SB7070, 2019, p. 40). To qualify for the retention bonus a K-12 classroom teacher must have been rated “highly effective” or “effective” the preceding year, taught in that same school for two consecutive years, and taught in a school that “improved an average of three percentage points or more in the percentage of total possible points achieved for determining school grades over the prior three years” (SB7070, 2019, p.41). To qualify for the recognition award, K-12 teachers “must be rated as highly effective and selected by his or her
school principal, based on performance criteria and policies adopted by the district school board” (SB7070, 2019, p. 42).

Federal and State Policy for Special Education

Education of All Handicapped Children Act of 1975

Congress enacted and President Ford signed the *Education of All Handicapped Children Act (EHA)* of 1975 in order to protect the rights of infants, toddlers, children, and youth with disabilities and their families (Office of Special Education Programs, 2007). EHA of 1975 required public schools that accepted federal funds to provide equal access to education for children with physical and mental disabilities. There were four main components to EHA (1975), to ensure special education services were available to children requiring them, to guarantee fair and appropriate decisions regarding special education services, to establish management and auditing requirements in regards to special education, and to provide federal funds to assist states with the education of students with disabilities. Prior to the Education of All Handicapped Children Act of 1975, more than half of children with disabilities in the United States did not have access to an appropriate education (EHA, 1975). ESA of 1975 required the free and appropriate public education (FAPE) of children with disabilities in the least restrictive environment (LRE) through the establishment of “procedural safeguards” (EHA, 1975, p.9).

Individuals with Disability Act of 2004

The *Education of All Handicapped Children Act* of 1975 was reauthorized in 1997 as the *Individuals with Disabilities Act (IDEA)*. President Clinton reauthorized IDEA (1997) which
added components that emphasized providing all students, including students with disabilities, access to the same curriculum. Additionally, the reauthorization expanded the “developmental delay” definition from birth to age five to also include students ages six through nine (IDEA, 1997, p.9). In 2004, IDEA was reauthorized again to include early intervention for students, require greater accountability and improved educational outcomes for students with disabilities, and increase the standards required for teachers of students with disabilities (Office of Special Education Programs, 2007). IDEA (2004) sets forth requirements for the qualifications of individuals serving as teachers for special education a) obtain full state certification, including completion of an alternative route to certification, b) not have special education certification or licensure requirements waived, and c) hold at least a bachelor’s degree.

IDEA (2004) is comprised of four sections: Part A – General Provisions, Part B – Assistance for Education for All Children with Disabilities, Part C – Infants and Toddlers with Disabilities, and Part D – National Activities to Improve Education of Children with Disabilities. Part A provides the basic foundation of the act through the definition of terms and the creation of the Office of Special Education Programs (OSEP). OSEP is responsible for administering and carrying out the terms of IDEA (IDEA, 2004). Part B focuses on the educational guidelines for children ages 3 to 21. IDEA provides federal funds to support state and local school districts in the education of students with disabilities. In order to receive funding there are six main principles that must be met: every child is entitled to a free and appropriate public education; school professionals must participate in the child find process to evaluate and identify students with disabilities; creation of an individual education plan; the education and services for students with disabilities must be provided in the least restrictive environment; input of the student and
their parents must be considered in the education process; when a parent feels an IEP is inappropriate for their child or their child is not receiving the services needed, they are able to challenge the plan in a process known as due process (IDEA, 2004). Part C acknowledges the need to identify and reach very young children with disabilities, otherwise known as early intervention (IDEA, 2004). This portion of IDEA provides the educational guidelines for infants and toddlers from birth through age 2 and the services for which families are entitled. The requirements for Part C closely mirror those for Part B. Part C discusses four major entitlements: families are entitled to multidisciplinary identification and intervention services for their infant and toddlers; families are required to receive an Individualized Family Service Plan (IFSP) which describes the goals of the child, the services to be provided, and steps for transition into formal education; families have the right to participate in the creation of the IFSP and must provide consent prior to the initiation of services; and parents are entitled to a timely resolution of conflicts or complaints regarding the evaluation or services provided to their child (IDEA, 2004). Part D is the final section of IDEA and describes national activities to be provided to improve the education of children with disabilities. This section includes provisions related to discretionary grants to support state personnel development, technical assistance and dissemination, technology, and parent training and information centers. This is conveyed through two subparts. Subpart One includes state program improvement grants for children with disabilities. Subpart Two includes coordinated research, personnel preparation, technical assistance, support, and dissemination of information (IDEA, 2004).
Human Resource Initiatives

Bolman and Deal (2017) believe the human resource frame centers around the mutually beneficial relationship between the organization and the people within it. Organizations strive to recruit and retain “talented, highly motivated” individuals who provide their best (Bolman & Deal, 2017). The “skills, attitudes, energy, and commitment” are vital attributes of employees that impact an overall organization (Bolman & Deal, 2017, pp.118-119). The National Commission on Teaching and America’s Future (NCTAF) found that one way to reduce teacher turnover is through coherent human resource policies that focus on hiring well prepared teachers (Carroll, 2007). However, the retention of qualified individuals is also dependent upon meeting the needs of these professionals (Bolman & Deal, 2014; 2017). One way to provide support to teachers is through professional learning experiences (Darling-Hammond et al., 2017; Guha et al., 2016; Podolsky et al., 2019). Within the context of education Bolman and Deal (2002) explain the value of feeling safe, a sense of belonging, feeling appreciated, and feeling that a difference is being made. Through open communication, empowering others, asking for feedback, and empowering others to take initiative school and school district leaders can strengthen relationships and therefore teacher retention (Bolman & Deal, 2002).

Teacher Retention and Attrition

Teacher turnover is one of the major contributors to teacher shortages, especially with beginning teachers who are already more likely to leave the classroom (Barnett, 2004; Billingsley, 2004; Brownell, Bishop, & Sindelar, 2018). The first year of teaching is often challenging and stressful (Ingersoll & Smith, 2004). It is also when teachers often decide
whether to remain in their school and the profession (Ingersoll & Smith, 2004). Goldring and colleagues (2014) found that 21% of first-year teachers left their school or the profession within their first year of teaching. Ingersoll (2001) suggested that due to the “revolving door” created by teachers leaving their jobs due to reasons other than retirement there is a need to address the causes of low teacher retention (p.1).

Since the 1980s, there has been an increase in first-year teachers leaving the profession; whereas in 1988 the average teacher had 15 years of experience, in 2008 a quarter of the teaching profession had 5 years or less experience (Ingersoll, 2012). Teachers reported concerns regarding classroom management, differing learning needs of students, lack of overall support, and ineffective leadership (Ingersoll, 2001). Additionally, beginning teachers are “unaccustomed to dealing with anything less than success, some beginning teachers assume that they are in the wrong profession and quit” (Brock & Grady, 2007, p.7).

The amount of support provided to beginning teachers is integral during their formative years when teachers are transitioning from preparation to practice (Podolsky et al., 2016). Teachers who receive support through induction, coaching, mentoring, and other various supports have been found to be retained at greater rates than teachers who did not receive these supports (McVey & Trinidad, 2019; Podolsky et al., 2016). Induction programs, mentoring, and administrative support are strategies that school leaders can utilize in order to increase retention of special education teachers (Barnett, 2004; Brownell, Bishop, & Sindelar, 2018; Thornton, Peltier, & Medina, 2007). Overall, the common theme and key factor in teacher retention is support (Sutcher, Darling-Hammond, & Carver-Thomas, 2016).
Many school districts utilize an induction program to support their beginning teachers (Carver-Thomas & Darling-Hammond, 2017; Sutcher, Darling-Hammond, & Carver-Thomas, 2016). These programs often include mentoring and encompass supportive communication, regularly scheduled collaboration, seminars, and common planning time (Kang & Berliner, 2012). Data from California’s two-year mandatory induction program, Beginning Teacher Support and Assessment Program (BTSA), showed that beginning teacher attrition had been reduced from 39 percent to 9 percent (American Federation of Teachers, 2001). This suggests that with the proper support and guidance beginning teachers are more likely to remain within the teaching profession.

A major part of the induction process often entails a mentoring component (Ingersoll & Strong, 2011; Glazerman et al., 2010). The mentoring partnership optimally is designed to meet the unique challenges of teachers (Thornton, Peltier, & Medina, 2007). Through the mentoring process, beginning teachers are provided with support surrounding classroom management, encouraging student success, curricular and instructional resources, assignment and workload, and various topics as needed by the individual mentee (Ingersoll & Strong, 2011). The overall goal of a teacher mentoring programs is to provide teachers with a local guide, provide a sense of community, and assist in the personal adjustment (Ingersoll & Strong, 2011; Rebore, 2007).

Additionally, school climate and culture impact teacher retention and is often influenced by the school principal (Thornton, Peltier, & Medina, 2007). It is fundamental that principals consider the responsibilities and needs of teachers, provide appropriate instructional materials, reasonable caseloads, access to support, and instructional feedback specific to the population the teacher engages (Thornton, Peltier, & Medina, 2007). According to Hattie (2009), school leaders
have a moderate effect size, $d = 0.36$, on student learning. An instructional leader holds high expectations of teachers and students while supporting teachers by providing a disruption-free teaching environment and opportunities for teacher learning and development (Hattie, 2009). Therefore, when considering the human resource frame, beginning teachers that have trusting relationships within their school community in which they are provided open communication with continuous feedback, and are empowered to take initiative in their instructional practice are more likely stay within the profession (Bolman & Deal, 2002; 2017).

**Teacher Retention and Attrition in Florida**

According to Ingersoll and Perda (2011), during the 2008-2009 school year approximately 14,065, or 8% of teachers, left the teaching profession. The cost of teacher attrition in the state of Florida as a result ranged between $61,392,667 and $133,629,263 (Ingersoll & Perda, 2011). In 2014, Florida had approximately 15% of their teachers leave the profession annual which is higher than the national average of 13% of teachers leaving the profession annual (Alliance for Excellent Education, 2014). Additionally, approximately 40% of teachers leave the classroom after five years and approximately 50% of teachers move or leave the profession after 10 years (Postal, 2014). In a study by West and Chingos (2009), while 82% of fourth and fifth grade teachers remained at their same school after one year, this figured dropped to approximately 50% by their fifth year. Additionally, the data from West and Chingos’ (2009) study suggest that the majority of teachers in Florida occur within a school district rather than between districts.
According to the Florida Department of Education (2019d), during the 2017-2018 school year the average years’ of teacher experience was 11.33 years. Considering Florida is near or above the national average of teacher attrition, it is also important to note that Florida is one of 17 states without statutes or regulations around teacher induction programs (American Federation of Teachers, 2011).

Teacher Retention and Attrition for Special Education

Retention and attrition play an integral role in the teacher shortage problem experienced in the United States (Billingsley, 2004; Ingersoll, 2001; Sutcher et al., 2016). Specifically, the field of special education has one of the highest turnover rates in the profession (Billingsley, 2004; Ingersoll, 2001; McLeskey et al., 2004). According to McLeskey and colleagues (2004) more than 13% of special education teachers transfer to general education or leave the profession each year. This suggests that special education teachers are leaving the field at greater rates than their general education colleagues (Brownell & Smith, 1992; McLeskey et al., 2004). In order to adequately address the critical teacher shortages in special education, it is necessary to analyze the conditions and supports that influence specifically retention of special education teachers (McLeskley et al., 2004). Providing professional support such as induction practices, mentoring, and professional learning opportunities are recommended in improving the retention of beginning teachers (Brownell & Smith, 1992).

Teacher Retention and Attrition for Special Education in Florida

Special education is considered a critical teacher shortage area in the state of Florida (Florida Department of Education, 2019a). Special educators made up 14% of teachers in the
state of Florida during the 2017-2018 school year (Florida Department of Education, 2019e). In order to meet the continuous need of retaining special education teachers, there are several factors that should be considered.

According to the Florida Department of Education (2019f), the percentage of individuals who pass the special education subject exam in 2018 was 78%, a 10% decrease from an 87% passing rate in 2017. In a study of 1,576 Florida special education teachers over two years, Miller, Brownell, and Smith (1999) investigated the variables associated in the prediction of special education teachers leaving, staying, or transferring. According to Miller and colleagues (1999), there is evidence that associates certification status, perception of stress, and perception of school climate to special education teacher attrition. Consistent with Miller and colleagues findings, if special education teachers are unable to pass their certification area exams, there is a higher likelihood of them leaving the profession.

Additionally, in order to further investigate special education teacher attrition Keenum (2015) conducted a survey of teachers in one Central Florida school district. Keenum’s (2015) data showed that 63% of special education teacher respondents indicated lack of school district support as a major influence in their decision to leave the special education classroom and 46% of special education teacher respondents indicated lack of school-based administrative support as a major influence in their decision to leave the special education classroom. Therefore, school based and school district based administrators that have a human resources perspective have the potential increase retention through providing varying levels of support related to certification, school climate, and pedagogical needs.
Teacher Licensure

The education system in the United States is governed at the local level (Rebore, 2015). Each state has its own certification criteria for prospective public school teachers (Rebore, 2015). Therefore, requirements for obtaining a teaching licensure vary by state. General K-12 certification requirements include completion of a bachelor’s degree, completion of an accredited teacher preparation program, a designated number of credentials in the given subject area if teaching at the secondary level, and most states require passing scores on state teacher certification exams (Teacher Certification Degrees, 2019).

Teacher Licensure in Florida

The Florida Department of Education (FLDOE) recognizes two types of teacher licensure, a renewable professional certification and a non-renewable temporary certification (Florida Department of Education, 2019b). Teachers who graduate with a Bachelor’s degree in the field of education and pass the Florida certification examinations are eligible to obtain a professional teaching certificate in the area for which they took and passed an exam (Florida Department of Education, 2019b). The professional teaching certificate is renewable every five years (Florida Department of Education, 2019b). Educators who do not have a background in the field of education but hold a Bachelor’s degree in another field are eligible for a non-renewable temporary certificate (Florida Department of Education, 2019c). Teachers who hold a temporary certificate are given three years to complete requirements for a professional certificate while teaching full-time (Florida Department of Education, 2019b). Once accomplished, they will
advance from a temporary certificate to a professional certificate (Florida Department of Education, 2019b).

Although temporary certification allows a greater pool of applicants to teach while simultaneously completing requirements for a professional certificate, many believe this can leave teachers ill-prepared for the realities of the classroom and does not provide necessary support systems for new classroom teachers (Thornton, Peltier, & Medina, 2007). According to Darling-Hammond (1999), approximately 60% of teachers who enter teaching through non-traditional paths leave the profession after three years as compared to 30% of traditionally prepared teachers.

Teacher Preparation and Support

Beginning teachers who are unprepared or poorly supported are more likely to leave the field within their first five years of teaching (Woods, 2016b). It is suggested that preparation and support have a more significant impact on teacher retention than licensure route (Woods, 2016a). Teachers who feel better prepared through preparation programs or ongoing support such as induction, mentoring, and professional learning opportunities are more likely to remain in the profession (Eberhard, Reinhardt-Mondragon, & Stottlemyer, 2000; Woods, 2016a). Professional learning is accepted as one area of interest in providing support to teachers (Darling-Hammond et al., 2017). To be most effective, professional learning experiences should be content focused, include active learning, support collaboration, model the use of effective practices, provide coaching and support, offer feedback and reflection, and provide adequate time and learning opportunities for acquisition of new skills (Darling-Hammond et al., 2017).
Teacher Preparation and Support for Special Education

Support for beginning teachers is associated with higher retention rates (Billingsley, 2004; Ingersoll, 2001; Woods, 2016b). School districts and schools are required to provide support to their teachers in the instruction of students with disabilities through targeted professional development based on research-based practices (IDEA, 2004). Additionally, having a mentor within the same field and professional learning opportunities related to assigned subject areas have been considered more influential than other retention strategies (Woods, 2016b). Research suggests that one of the main components for special education teacher retention is pre-service student teaching (Connelly & Graham, 2009; Eberhard et al., 2000). Moreover, special education teachers who experienced adequate pre-service training of at least ten weeks were more likely to remain in the profession that academic year (Connelly & Graham, 2009). In their preliminary study, Connelly and Graham (2009) found that 80% of special education teachers who received at least ten weeks or more of student teaching stayed in special education for that year whereas only 63% of teachers who received less than ten weeks of student teaching were retained in the field.

Summary

The review of the literature discussed the existing literature on the relationship among three of Bolman and Deal’s (2017) frames (structural, political, and human resources) and teacher retention. Through the lens of the structural frame one may analyze the teacher shortage issue. Teacher shortages date back to the 1980s (Brownell, Bishop, & Sindelar, 2018; Rebore, 2015; Thorton, Peltier, & Medina, 2007). Teacher shortages continue to impact school districts
and school administrators as approximately 250,000 teacher vacancies must be filled annually (Sutcher et al., 2016). In Florida, the teacher shortages continue to grow as well. In 2018, Florida schools had 4,000 advertised vacancies, half of which remained unfilled by January (FEA, 2019). In order to meet the increasing need for teachers recruitment efforts include alternative teacher preparation programs, financial incentives, resident to teacher programs, and building partnerships with local university teacher preparation programs (Brownell, Bishop, & Sindelar, 2018; Brownell, Hirch, & Seo, 2004; Rebore, 2015; Thornton, Peltier, & Medina, 2007). Teacher shortages specifically impact the field of special education as well. According to the National Coalition on Personnel Shortages in Special Education and Related Services (2016), during the 2013-2014 school year 49 states in the United States reported a shortage of special education teachers. In Florida, special educators accounted for 26% of the instructional vacancies in the state (Florida Department of Education, 2019c).

Through the political lens, one may analyze the federal and state policies that impact the teacher shortage and retention issue. The implantation of the Elementary and Secondary Education Act of 1965 and its reauthorizations, the Improving America’s Schools Act of 1994, No Child Left Behind Act of 2001, and Every Student Succeeds Act of 2015, attempt to increase educational equity by ensuring that every child regardless of race and socioeconomic status have equal future opportunities by lessening the achievement gap. This legislation has a focus on academic accountability and provides federal funds to local educational agencies to support schools in providing rigorous instruction to meet high academic standards. In Florida, Senate Bill 7070 attempts to increase recruitment and retention efforts through financial incentives and certification support. In the area of special education, the Education of all Handicapped Children
Act of 1975 and its reauthorization, *Individuals with Disabilities Act* of 2004 provides federal legislation to ensure the fair education of students with disabilities. This law ensures that special education services are available to children that require them, fair and appropriate decisions regarding these special education services, a management and auditing system in regards to special education, and federal funds to assist states with the education of students with disabilities.

Through the human resources lens, one may analyze the teacher retention and attrition issue. Teacher turnover is one of the major influencers in the teacher shortage dilemma (Barnett, 2004; Billingsley, 2004; Brownell, Bishop, & Sindelar, 2018). First-year teacher attrition has been increasing since the 1980s (Ingersoll, 2012). One factor influencing the retention or attrition of beginning teachers is the amount of support provided (Ingersoll, 2001; McVey & Trinidad, 2019; Podolsky et al., 2016). Support can be provided through induction, mentoring, professional development opportunities (Barnett, 2004; Brownell, Bishop, & Sindelar, 2018; Thornton, Peltier, & Medina, 2007). Each year in Florida approximately 15% of teachers leave the profession which is higher than the national average of 13% (Alliance for Excellent Education, 2014). This costs the state of Florida between $61,392,667 and $133,629,263 (Ingersoll & Perda, 2011). Special education has one of the highest turnover rates within the field of education (Billingsley, 2004; Ingersoll, 2001; McLeskey et al., 2004). In Florida there is a critical teacher shortage in special education (Florida Department of Education, 2019a). In order to influence the recruitment and retention of special educators, school based and school-district based administrators should evaluate the level of support provided to teachers.
The teacher shortage dilemma can be analyzed through the use of Bolman and Deals’ (2017) four-frame model, specifically considering the structural, political, and human resources frames. This analysis discussed the relationship among Bolman and Deal’s (2017) four-frame model and teacher shortages, federal and state policy, teacher retention and attrition, teacher licensure, and professional development. The methodology for this study is presented in the subsequent chapter.
CHAPTER THREE: METHODOLOGY

Introduction

Chapter three details the quantitative methods utilized in the study. Descriptive analyses, cross-tabulation tables, chi-square test of independence, and Mann-Whitney U tests were utilized. This study sought to investigate teacher shortages as it related to the relationship among teacher retention, type of licensure, teaching assignment, and professional learning as stated in Chapter 1. The methodology utilized to test the research questions is discussed in this chapter. The chapter is organized into five sections: purpose of the study, procedure, population and sample, data collection, and data analysis.

Purpose of the Study

The purpose of this study was to examine the relationship among first-year teacher retention, type of licensure, teaching assignment, and professional learning. Specifically, this study sought to determine first-year teacher retention based upon whether a cohort of first-year teachers remained at their same school, moved to another school within the same school district, or left the school district or the profession from year to year between 2015 to 2019.

Population

The population of this study was a cohort of all first-year teachers within one large urban Central Florida school district that began during the 2015-2016 school year and were followed through the 2018-2019 school year. This study consisted of 218 first-year teachers during the 2015-2016 school year. The cohort consisted of all first-year teachers from the traditional public school district...
schools, excluding charter, virtual, private, alternative, or special schools from the targeted school district. The targeted school district consisted of 24 elementary schools, 9 middle schools, 3 kindergarten through eighth grade schools, and 10 high schools.

Data Collection

This study utilized a quantitative, causal-comparative approach to collect all relevant data for the analysis (Fraenkel, Wallen, & Hyun, 2015). The methodology will be discussed in this section.

University Protocol

Prior to beginning this study and collecting data, an application describing the parameters of the study was submitted to the Institutional Review Board (IRB) at the University of Central Florida on July 25, 2019. The application included the information within chapter one of this study. IRB approval was obtained on July 25, 2019, see Appendix A.

Targeted School District Protocol

An application to conduct research was submitted to the Office of Research, Evaluation, and Accountability of the targeted school district. The application described the parameters of the study, including the purpose, research design, and sources of data dependent on school district records. The application was submitted to the targeted school district on October 10, 2019 and was approved on October 28, 2019, see Appendix B. Data were received in January 2020.
Quantitative Data Collection

Data were collected on a cohort of first-year teachers during the 2015-2016 school year. Data remained anonymous and de-identified to protect the privacy of the first-year teachers. Data collected included teaching assignment, type of licensure (professional and temporary), school district and/or school professional learning records, school assignment for the 2015-2016 and 2019-2020 school years, and end date if the teacher no longer was employed by the targeted school district. Data were reviewed and participants that were not classroom teachers (instructional coaches, deans, media specialists, speech and language pathologist) were removed. Professional learning transcripts were utilized to calculate the amount of professional learning hours that were completed during the 2015-2016 school year.

Data Analysis

This study utilized a quantitative methodology data analysis (Gall, Gall, & Borg, 2007). Four overarching research questions guided the data analysis. Research question 1 analyzed the differences between types of licensure held by first-year general education and special education teachers. Research question 2 analyzed the amount of professional development hours completed by first-year teachers during the 2015-2016 school year and whether differences existed between hours of professional learning hours completed by general education teachers and special education teachers as it related to type of licensure. Research question 3 analyzed the relationships among teacher retention (as measured by stayers, movers, and leavers) and type of licensure, teaching assignment, and professional learning. Research question 4 analyzed in what ways the factors influencing first-year teacher retention interacted with one another. IBM
Statistical Package for Social Sciences (SPSS) Statistics version 1 software was used to run statistical tests. Descriptive analyses, chi-square of independence and Mann-Whitney U were used to analyze the research questions. Descriptive analyses assisted in the identification of trends and allowed for the comparison between groups such as teaching assignment and type of licensure; teaching assignment and professional learning hours completed; and retention of first-year teachers and type of licensure, teaching assignment, and professional learning completed. Crosstabulation tables were used to organize descriptive statistics, frequencies, to derive information regarding the relationship between the variables that were analyzed. Chi-square test of independence was used to determine whether type of licensure was related to, or independent of, teaching assignment. Additionally, Chi-square test of independence was used to determine whether retention was related to type of licensure, teaching assignment, and professional learning experiences respectively. The Mann-Whitney U was used to determine whether differences existed between general education and special education teachers’ professional learning hours completed.
Table 1
Research Questions and Data Sources

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Data Source</th>
<th>Variable</th>
<th>Data Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In what ways do first-year general education and special education teachers differ in the type of licensure they hold (i.e., professional or temporary)?</td>
<td>Large Urban School District Data, 2015-2019</td>
<td>Independent variables: teaching assignment and type of licensure</td>
<td>Descriptive statistics, cross-tabulation tables, Chi-Square Test of Independence</td>
</tr>
<tr>
<td>2. In what ways do first-year general education and special education teachers differ in terms of the amount of professional learning hours completed through their school or the targeted school district based on their type of licensure?</td>
<td>Large Urban School District Data, 2015-2019</td>
<td>Independent variables: teaching assignment and type of licensure</td>
<td>Descriptive statistics, Mann-Whitney U</td>
</tr>
<tr>
<td>3. In what ways does first-year teacher retention differ by type of licensure, teaching assignment, and professional learning experiences?</td>
<td>Large Urban School District Data, 2015-2019</td>
<td>Independent variables: type of licensure, teaching assignment, and professional learning</td>
<td>Descriptive statistics, cross-tabulation tables, Chi-Square Test of Independence</td>
</tr>
<tr>
<td>4. How do the factors influencing retention interact with one another?</td>
<td>Large Urban School District Data, 2015-2019</td>
<td>Independent variables: type of licensure, teaching assignment, and professional learning</td>
<td>Descriptive statistics, cross-tabulation tables,</td>
</tr>
</tbody>
</table>

Analysis of Research Question One

Research question one investigated in what ways first-year general education and special education teachers differed in the type of licensure they hold (i.e., professional or temporary). To answer this research question, a chi-square test of independence was used to identify whether a relationship existed between teaching assignment, general education and special education, and type of licensure, professional or temporary license. The chi-square test of independence was selected because the results of the test determined whether there was a relationship between teaching assignment and type of licensure (Steinberg, 2011). The chi-square test of independence
was completed using the SPSS program. The data were analyzed to determine whether there was an observed difference between general education and special education teachers and type of licensure, temporary and professional. To determine if there was significant relationship between the variables, the observed value must exceed the tabled criterion at $\alpha = .05$. Additionally, cross-tabulation tables were used to identify patterns or trends.

Analysis of Research Question Two

Research question two investigated in what ways first-year general education and special education teachers differed in terms of the amount of professional learning hours they completed through their school or the targeted school district. There were three significant outlines in the two groups. Because there were significant outliers, the assumptions for the independent sample $t$-test could not be met; therefore, the researcher used the Mann-Whitney U test using professional learning hours as the dependent variable and teaching assignment and type of licensure as the independent variables to determine if it could explain the difference in the amount of professional learning hours completed by first-year teachers. The Mann-Whitney U was completed using the SPSS program. The data were analyzed to determine if there were differences in professional learning hours completed between general education and special education teachers with professional and temporary licensure (Laerd Statistics, 2015a).

Meeting Statistical Assumptions for Research Question Two

An independent samples $t$-test has six statistical assumptions, including a continuous dependent variable, categorical independent variable with two groups, and independence of observations (Laerd Statistics, 2015a). These assumptions were met. Additionally, there should
be no significant outliers within the groups being compared, an approximate normal distribution of the independent variables, homogeneity of variances within the groupings of the independent variables (Laerd Statistics, 2015a).

An SPSS box-and-whisker plot was used to determine outliers that were more than one and a half box-lengths beyond the edge of the box (Laerd Statistics, 2015a). There were two general education teachers with professional certification and one general education teacher with temporary certification that were outliers. These outliers were examined to determine if there were measurement errors. If there were none and the variable was genuinely unusual, this was explained in the analysis. Due to failing this assumption, the Mann-Whitney U test, a test for nonparametric data, was utilized.

Analysis of Research Question Three

Research question 3 investigated in what ways first-year teacher retention differed by type of licensure, teaching assignment, and professional learning experiences. For the purpose of this research question professional learning experiences were categorized into quartiles based on the 2015-2016 professional learning hours completed by first-year teachers. To answer this research question, a chi-square test of independence was used to identify whether a relationship existed between retention (stayers, movers, and leavers) and type of licensure (professional or temporary license), teaching assignment (general education and special education), and professional learning hours (1st quartile, 2nd quartile, 3rd quartile, 4th quartile) experiences of first-year teachers. The chi-square test of independence was selected because the results of the test determined whether there was a relationship between retention and teaching assignment,
type of licensure, and professional learning experiences (Steinberg, 2011). The chi-square test of independence was completed using the SPSS program. The data were analyzed to determine whether there was an observed difference in retention and teaching assignment (general education and special education teachers), type of licensure (temporary and professional), and professional learning hours. To determine if there was an significant relationship between the variables, the observed value must exceed the tabled criterion at $\alpha = .05$. Additionally, cross-tabulation tables were used to identify patterns or trends.

**Analysis of Research Question Four**

Research question 4 investigated how the factors influencing retention interacted with one another. To answer this research question, descriptive statistics were used in the form of multi-variate crosstabulation tables to analyze the relationships among teacher retention (stayers, movers, and leavers) and type of licensure, teaching assignment, and professional learning experiences of first-year general education and special education teachers in the targeted school district.

**Summary**

This chapter reiterated the purpose of the study and outlined the procedures, population, data collection methods, and data analysis. Additionally, this chapter discussed the research questions. Extant data from one urban Central Florida school district was obtained for all first-year teachers that began during the 2015-2016 school year and was limited to teachers in the classroom setting. Quantitative data collection and data analyses were discussed in the chapter.
Further methods of statistical analysis for each research question was presented as it related to the data analysis. Results of the analysis are presented in the subsequent chapter.
CHAPTER FOUR: ANALYSIS OF DATA

Introduction

The purpose of this study was to investigate the relationship among retention, teaching assignment, licensure, and professional learning experiences of first-year teachers. This was achieved through analyzing data provided by the targeted school district. This chapter presents the results of the data analysis of the four research questions that guided this study.

This chapter begins with a review of the research questions and methodology described in chapter three. Then, descriptive statistics on demographic variables regarding the first-year teachers are presented. Following the descriptive statistics, the findings are reported by research question.

Research Questions

1. In what ways do first-year general education and special education teachers differ in the type of credentials they hold (i.e., professional or temporary)?
2. In what ways do first-year general education and special education teachers differ in terms of the amount of professional learning hours completed through their school or the targeted school district based on their type of licensure?
3. In what ways does first-year teacher retention differ by type of licensure, teaching assignment, and professional learning experiences?
4. How and in what ways do the factors influencing retention interact with one another?
Methodology

To answer research question one, chi-square tests and descriptive statistics were used to investigate teaching assignment and type of licensure. To answer research question two, Mann-Whitney U and descriptive statistics were used to investigate teaching assignment and type of licensure and professional learning hours completed during the 2015-2016 school year. To answer research question three, chi-square tests and descriptive statistics were used to investigate retention and teaching assignment, type of licensure, and professional learning experiences. For research question four, descriptive statistics and multi-variate cross-tabulation tables were used to investigate in what ways the factors influencing retention interact with one another.

Population

The population of this study consisted of first-year teachers from one large urban school district in central Florida during the 2015-2016 school year. The population consisted of 218 classroom teachers ($N = 218$). The population was limited to classroom teachers during the 2015-2016 school year and excluding speech and language pathologists, substitute teachers, deans, and instructional coaches.

Population Demographics

Data provided by the targeted school district included demographic information about first-year teachers such as teaching assignment (general education and special education), type of licensure (professional and temporary), and retention (stayer, mover, and leaver). The population was comprised of 218 first-year teachers from the elementary school, middle school, high school, and kindergarten through eighth grade school levels. Table 2 illustrates the demographic
information obtained through a descriptive analysis of frequencies and percentages for the deidentified data for the cohort of first-year teachers during the 2015-2016 school year that was provided by the targeted school district. There were 191 (88%) first-year general education teachers and 27 (12%) first-year special education teachers. A total of 139 (64%) of first-year teachers had professional licensure and 79 (36%) of first-year teachers had temporary licensure. Of the 218 first-year teachers, 99 (45%) teachers remained at their same schools between the 2015-2016 school year and 2019-2020 school year, 61 (28%) teachers moved to another school within the same targeted school district, and 58 (27%) teachers left the school district and/or the profession.

Table 2
Demographic Characteristics of the Teacher Population (N = 218)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Frequency (f)</th>
<th>Percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching Assignment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Education</td>
<td>191</td>
<td>88%</td>
</tr>
<tr>
<td>Special Education</td>
<td>27</td>
<td>12%</td>
</tr>
<tr>
<td>Type of Licensure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional</td>
<td>139</td>
<td>64%</td>
</tr>
<tr>
<td>Temporary</td>
<td>79</td>
<td>36%</td>
</tr>
<tr>
<td>Retention</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stayer</td>
<td>99</td>
<td>45%</td>
</tr>
<tr>
<td>Mover</td>
<td>61</td>
<td>28%</td>
</tr>
<tr>
<td>Leaver</td>
<td>58</td>
<td>27%</td>
</tr>
</tbody>
</table>

Research Questions

Research Question One

In what ways do first-year general education and special education teachers differ in the type of licensure they hold (i.e., professional or temporary)?
To answer research question one, a quantitative approach was used to analyze the teaching assignment and licensure data for first-year teachers in the targeted school district for the 2015-2016 school year. The first-year teacher data from the targeted school district reflected data from the school district’s 24 elementary schools, 9 middle schools, 3 kindergarten through eighth grade schools, and 10 high schools. To analyze the data collected, SPSS version 26 was used to complete descriptive statistics in the form of crosstabulation tables of teacher assignment and type of licensure and chi-square test of independence.

Descriptive analysis of first-year teachers’ \( (N = 218) \) teaching assignment and type of licensure were conducted through crosstabulation tables and reported in Table 3. During the 2015-2016 school year, there were 218 first-year teachers in the targeted school district, 191 (88\%) general education teachers and 27 (12\%) special education teachers. Of the first-year general education teachers, 122 (64\%) were hired with professional licensure and 69 (36\%) were hired with temporary licensure. Of the first-year special education teachers, 17 (63\%) were hired with professional licensure and 10 (37\%) were hired with temporary licensure.

Table 3
2015 Assignment by Type of Licensure Crosstabulation Table
Population \( (N = 218) \)

<table>
<thead>
<tr>
<th>Descriptor (N)</th>
<th>Professional f (%)</th>
<th>Temporary f (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching Assignment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Education (191)</td>
<td>122 (64%)</td>
<td>69 (36%)</td>
</tr>
<tr>
<td>Special Education (27)</td>
<td>17 (63%)</td>
<td>10 (37%)</td>
</tr>
</tbody>
</table>
A chi-square test of independence was conducted between teaching assignment and type of licensure. All expected cell frequencies were greater than five. There was not a statistically significant association between teaching assignment and type of licensure, $\chi^2 (1, N = 218) = 0.01, p > .10$. There was little, if any, association (Cohen, 1988), Cramer’s $V = 0.01$. This suggests that type of licensure is essentially the same for general education and special education teachers.

**Research Question Two**

*In what ways do first-year general education and special education teachers differ in terms of the amount of professional learning hours completed through their school or the targeted school district based on their type of licensure?*

To answer research question two, a Mann-Whitney U comparative analysis was completed in order to identify whether there was a relationship between teacher assignment and professional learning based on type of licensure. The researcher utilized teaching assignment as the grouping variable and 2015-2016 professional learning hours completed as the test variable. Additionally, the data were split based on type of licensure, professional and temporary.

A Mann-Whitney U test was run to determine if there were differences in 2015-2016 professional learning hours between general education and special education teachers. The data were further split by type of licensure (professional and temporary). Distributions of the professional learning hours completed for general education and special education were similar, as assessed by visual inspection. Median professional learning hours completed, Table 4, were not statistically significantly different between general education (68) and special education
teacher (93.5) with professional licensure, $U = 881, z = -0.63, p = .53$, using an exact sampling distribution for $U$ (Dineen & Blakesley, 1973). This suggests that amount of professional learning hours completed is essentially the same for general education and special education teachers with professional licensure.

A Mann-Whitney U test was run to determine if there were differences in 2015-2016 professional learning hours between general education and special education teachers. The data were further split by type of licensure (professional and temporary). Distributions of the professional learning hours completed for general education and special education were similar, as assessed by visual inspection. Median professional learning hours completed, Table 4, were not statistically significantly different between general education (75) and special education teacher (92.5) with temporary licensure, $U = 317.50, z = -0.41, p = .69$, using an exact sampling distribution for $U$ (Dineen & Blakesley, 1973). This suggests that amount of professional learning hours completed is essentially the same for general education and special education teachers with temporary licensure.

Table 4
2015-2016 Median Professional Learning Hours Completed
Population (N = 218)

<table>
<thead>
<tr>
<th>Descriptor (N)</th>
<th>Type of Licensure</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Professional</td>
<td>Temporary</td>
<td></td>
</tr>
<tr>
<td>Teaching Assignment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Education (191)</td>
<td>68</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td>Special Education (27)</td>
<td>93.5</td>
<td>92.5</td>
<td></td>
</tr>
</tbody>
</table>

Teacher assignment and professional learning based on type of licensure were not statistically significant. These data are displayed in Table 5.
Table 5
2015-2016 Professional Learning Hours Completed by Teaching Assignment
Population (N = 218)

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>U</th>
<th>z</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional Licensure</td>
<td>139</td>
<td>881</td>
<td>-0.63</td>
<td>.53</td>
</tr>
<tr>
<td>Temporary Licensure</td>
<td>79</td>
<td>317.5</td>
<td>-0.41</td>
<td>.69</td>
</tr>
</tbody>
</table>

Research Question Three

*In what ways does first-year teacher retention differ by type of licensure, teaching assignment, and professional learning experiences?*

To answer research question three, a quantitative approach was used to analyze the retention (stayers, movers, and leavers) and teaching assignment, type of licensure, and professional learning experiences data for first-year teachers in the targeted school district for the 2015-2016 school year. The first-year teacher data from the targeted school district reflected data from the school district’s 24 elementary schools, nine middle schools, three kindergarten through eighth grade schools, and 10 high schools. To analyze the data collected, SPSS was used to complete descriptive statistics in the form of crosstabulation tables of retention and teaching assignment, retention and type of licensure, and retention and professional learning hours and chi-square tests.

Descriptive analysis of first-year teachers’ (N = 218) retention and teaching assignment were conducted through crosstabulation tables and reported in Table 6. During the 2015-2016 school year, there were 218 first-year teachers in the targeted school district. There were 99 (45%) first-year teachers that stayed at their same school during the 2015-2016 school year and
2019-2020 school year. Of those teachers who stayed at their same school, 84 were general education teachers (44% of general education teachers) and 15 were special education teachers (56% of special education teachers). There were 61 (28%) first-year teachers that moved to another school within the targeted school district between the 2015-2016 school year and 2019-2020 school year. Of those teachers who moved to another school in the targeted school district, 55 were general education teachers (29% of general education teachers) and 6 were special education teachers (22% of special education teachers). There were 58 (27%) first-year teachers that left the targeted school district and/or the profession between the 2015-2016 school year and 2019-2020 school year. Of those teachers who left the targeted school district and/or the profession, 52 were general education teachers (27% of general education teachers) and 6 were special education teachers (22% of special education teachers).

A chi-square test of independence was conducted between retention and teaching assignment. All expected cell frequencies were greater than five. There was not a statistically significant association between retention and teaching assignment, $\chi^2 (2, N = 218) = 1.29, p > 0.05$.

### Table 6
Retention by 2015 Assignment Crosstabulation Table

<table>
<thead>
<tr>
<th>Teacher Assignment</th>
<th>General Education $f$ (%)</th>
<th>Special Education $f$ (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retention Stayer</td>
<td>84 (44%)</td>
<td>15 (56%)</td>
</tr>
<tr>
<td>Mover</td>
<td>55 (29%)</td>
<td>6 (22%)</td>
</tr>
<tr>
<td>Leaver</td>
<td>52 (27%)</td>
<td>6 (22%)</td>
</tr>
</tbody>
</table>
There was little, if any, association (Cohen, 1988), Cramer’s V = 0.08. This suggests that retention is essentially the same for general education and special education teachers.

Descriptive analysis of first-year teachers’ (N = 218) retention and type of licensure were conducted through crosstabulation tables and reported in Table 7. During the 2015-2016 school year, there were 218 first-year teachers in the targeted school district. There were 99 (45%) that stayed at their same school during the 2015-2016 school year and 2019-2020 school year. Of those teachers who stayed at their same school, 63 teachers were hired with professional licensure (45% of teachers with professional licensure) and 36 teachers were hired with temporary licensure (46% of teachers with temporary licensure). There were 61 teachers (28%) that moved to another school within the targeted school district between the 2015-2016 school year and 2019-2020 school year. Of those teachers who moved to another school in the targeted school district, 32 teachers were hired with professional licensure (23% of teachers with professional licensure) and 29 teachers were hired with temporary licensure (37% of teachers with temporary licensure). There were 58 teachers (27%) that left the targeted school district and/or the profession between the 2015-2016 school year and 2019-2020 school year. Of those teachers who left the targeted school district and/or the profession, 44 teachers were hired with professional licensure (32% of teachers with professional licensure) and 14 teachers were hired with temporary licensure (18% of teachers with temporary licensure).
Table 7
Retention by Type of Licensure Crosstabulation Table

<table>
<thead>
<tr>
<th>Retention</th>
<th>Professional</th>
<th>Temporarily</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Type of Licensure</td>
<td>Descriptor (N = 218)</td>
</tr>
<tr>
<td>Stayer</td>
<td>Professional</td>
<td>63 (45%)</td>
</tr>
<tr>
<td>Mover</td>
<td>Temporary</td>
<td>32 (23%)</td>
</tr>
<tr>
<td>Leaver</td>
<td>Temporary</td>
<td>44 (32%)</td>
</tr>
</tbody>
</table>

A chi-square test of independence was also conducted between retention and type of licensure. All expected cell frequencies were greater than five. There was a statistically significant association between retention and type of licensure, $\chi^2(2, N = 218) = 7.05, p < .05$. There was a small association (Cohen, 1988) between retention and type of licensure, Cramer’s $V = 0.18$. Therefore, it can be concluded that there is a relationship between retention and type of licensure. This suggests that first-year teachers with professional licensure are more likely to remain at their same school than first-year teachers with temporary licensure.

Descriptive analysis of first-year teachers’ (N = 218) retention and professional learning hours were conducted through crosstabulation tables and reported in Table 8. During the 2015-2016 school year, there were 218 first-year teachers in the targeted school district. There were 99 first-year teachers (45%) that stayed at their same school during the 2015-2016 school year and 2019-2020 school year. Of those teachers who stayed at their same school, 18 teachers (18% of stayers) were in the 1st quartile of amount professional learning hours completed, 27 teachers (27% of stayers) were in the 2nd quartile of amount professional learning hours completed, 30 teachers (30% of stayers) were in the 3rd quartile of amount professional learning hours completed, and 24 (24% of stayers) were in the 4th quartile of amount professional learning hours completed. There were 61 (28%) that moved to another school within the targeted school.
district between the 2015-2016 school year and 2019-2020 school year. Of those teachers who moved to another school, 9 teachers (15% of movers) were in the 1st quartile of amount professional learning hours completed, 13 teachers (21% of stayers) were in the 2nd quartile of amount professional learning hours completed, 18 teachers (30% of stayers) were in the 3rd quartile of amount professional learning hours completed, and 21 teachers (34% of stayers) were in the 4th quartile of amount professional learning hours completed. There were 58 teachers (27%) that left the targeted school district and/or the profession between the 2015-2016 school year and 2019-2020 school year. Of those teachers who left the targeted school district and/or the profession, 27 teachers (47% of leavers) were in the 1st quartile professional learning hours completed, 14 teachers (24% of leavers) were in the 2nd quartile of amount professional learning hours completed, 9 teachers (16% of leavers) were in the 3rd quartile of amount professional learning hours completed, and 8 teachers (14% of leavers) were in the 4th quartile of amount professional learning hours completed.

Table 8
Retention by Professional Learning Hour by Quartiles Crosstabulation Table

<table>
<thead>
<tr>
<th>Descriptor (N = 218)</th>
<th>1st Quartile f (%)</th>
<th>2nd Quartile f (%)</th>
<th>3rd Quartile f (%)</th>
<th>4th Quartile f (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stayer</td>
<td>18 (18%)</td>
<td>27 (27%)</td>
<td>30 (30%)</td>
<td>24 (24%)</td>
</tr>
<tr>
<td>Mover</td>
<td>9 (15%)</td>
<td>13 (21%)</td>
<td>18 (30%)</td>
<td>21 (34%)</td>
</tr>
<tr>
<td>Leaver</td>
<td>27 (47%)</td>
<td>14 (24%)</td>
<td>9 (16%)</td>
<td>8 (14%)</td>
</tr>
</tbody>
</table>

A chi-square test of independence was also conducted between retention and professional learning. All expected cell frequencies were greater than five. There was a statistically significant association between retention and professional learning hours, $\chi^2 (6, N = 218) = 24.50, p < .001$. There was a moderate association (Cohen, 1988), Cramer’s V = 0.237.
Therefore, it can be concluded that there is a relationship between retention and professional learning hours completed. This suggests that first-year teachers that receive greater levels of support are more likely to remain teaching at their same school.

Research Question Four

_How and in what ways do the factors influencing retention interact with one another?_

To answer research question four, multivariate crosstabulation tables were created for retention by teaching assignment by type of licensure, retention by teaching assignment by 2015 professional development quartile, and retention by type of licensure by 2015 professional development quartile. Descriptive analyses were used to identify any relationships among the variables that influence retention.

Descriptive analysis of first-year teachers’ (N = 218) retention by teaching assignment by type of licensure was conducted through a crosstabulation tables and reported in Table 9. During the 2015-2016 school year, there were 218 first-year teachers in the targeted school district. There were 191 first-year general education teachers. Among first-year general education teachers, 54 teachers (29%) had professional licensure and stayed at their same school, 28 teachers (15%) had professional licensure and moved to another school within the same school district, 40 teachers (21%) had professional licensure and left the targeted school district and/or the profession, 30 teachers (16%) had temporary licensure and stayed at their same school, 27 teachers (14%) had temporary licensure and moved to another school within the same school district, and 12 teachers (6%) had temporary licensure and left the targeted school district and/or the profession. There were 27 first-year special education teachers. Among first-year special
education teachers, 9 teachers (33%) had professional licensure and stayed at their same school, 4 teachers (15%) had professional licensure and moved to another school within the same school district, 4 teachers (15%) had professional licensure and left the targeted school district and/or the profession, 6 teachers (22%) had temporary licensure and stayed at their same school, 2 teachers (7%) had temporary licensure and moved to another school within the same school district, and 2 teachers (7%) had temporary licensure and left the targeted school district and/or the profession.

Overall, first-year general education and special education teachers appear to have similar percentages of stayers based on type of licensure. First-year general education teachers with temporary licensure had a slightly higher percentage of teachers (14%) who moved to another school within the same school district compared to special education teachers with temporary licensure who moved to another school within the same school district (7%). Additionally, first-year general education teachers with professional licensure had a slightly higher percentage of teachers (21%) who left the school district and/or the profession compared to special education teachers with professional licensure who left the school district and/or profession (15%).

Table 9  
Retention by Teaching Assignment by Type of Licensure Crosstabulation Table

<table>
<thead>
<tr>
<th>Descriptor (N = 218)</th>
<th>General Education</th>
<th>Special Education</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Professional Licensure</td>
<td>Temporary Licensure</td>
</tr>
<tr>
<td>Stayer</td>
<td>54 (29%)</td>
<td>30 (16%)</td>
</tr>
<tr>
<td>Mover</td>
<td>28 (15%)</td>
<td>27 (14%)</td>
</tr>
<tr>
<td>Leaver</td>
<td>40 (21%)</td>
<td>12 (06%)</td>
</tr>
</tbody>
</table>
Descriptive analysis of first-year teachers’ \( (N = 218) \) retention by teaching assignment by professional learning quartile based on the amount of professional learning hours completed during the 2015-2016 school year was conducted through a crosstabulation tables and reported in Table 10. During the 2015-2016 school year, there were 218 first-year teachers in the targeted school district. There were 191 first-year general education teachers. Among first-year general education teachers, 16 teachers (8%) were in the first professional development quartile and stayed at their same school, 9 teachers (5%) were in the first professional development quartile and moved to another school within the same school district, 22 teachers (12%) were in the first professional development quartile and left the targeted school district and/or the profession; 24 teachers (13%) were in the second professional development quartile and stayed at their same school, 13 teachers (7%) were in the second professional development quartile and moved to another school within the same school district, 14 teachers (7%) were in the second professional development quartile and left the targeted school district and/or the profession; 23 teachers (12%) were in the third professional development quartile and stayed at their same school, 15 teachers (8%) were in the third professional development quartile and moved to another school within the same school district, 9 teachers (5%) were in the third professional development quartile and left the targeted school district and/or the profession; 21 teachers (11%) were in the fourth professional development quartile and stayed at their same school, 18 teachers (9%) were in the fourth professional development quartile and moved to another school within the same school district, 7 teachers (4%) were in the fourth professional development quartile and left the targeted school district and/or the profession. There were 27 first-year special education teachers. Among first-year special education teachers, 2 teachers (7%) were in the first professional
development quartile and stayed at their same school, 0 teachers were in the first professional development quartile and moved to another school within the same school district, 5 teachers (19%) were in the first professional development quartile and left the targeted school district and/or the profession; 3 teachers (11%) were in the second professional development quartile and stayed at their same school, 0 teachers were in the second professional development quartile and moved to another school within the same school district, 0 teachers were in the second professional development quartile and left the targeted school district and/or the profession; 7 teachers (26%) were in the third professional development quartile and stayed at their same school, 3 teachers (11%) were in the third professional development quartile and moved to another school within the same school district, 0 teachers were in the third professional development quartile and left the targeted school district and/or the profession; 3 teachers (11%) were in the fourth professional development quartile and stayed at their same school, 3 teachers (11%) were in the fourth professional development quartile and moved to another school within the same school district, 1 teacher (4%) were in the fourth professional development quartile and left the targeted school district and/or the profession.

Overall, first-year special education teachers appear to have a higher percentage of teachers (63%) in the third and fourth quartiles for amount of 2015-2016 professional development hours completed compared to their first-year general education colleagues (49%). First-year general education teachers appear to have more variability among the distribution of teachers within the professional development quartiles than first-year special education teachers. Additionally, first-year general education and special education teachers who were in the first
quartile for professional development hours completed during the 2015-2016 year were the highest percentage of leavers.

Table 10
Retention by Teaching Assignment by 2015 Professional Development Quartile Crosstabulation Table

<table>
<thead>
<tr>
<th>Descriptor (N = 218)</th>
<th>General Education</th>
<th>Special Education</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1st PD Quartile</td>
<td>2nd PD Quartile</td>
</tr>
<tr>
<td>Stayer</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>16 (8%)</td>
<td>24 (13%)</td>
</tr>
<tr>
<td>Mover</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>9 (5%)</td>
<td>13 (7%)</td>
</tr>
<tr>
<td>Leaver</td>
<td>22 (12%)</td>
<td>14 (7%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Descriptive analysis of first-year teachers’ (N = 218) retention by type of licensure by professional learning quartile based on the amount of professional learning hours completed during the 2015-2016 school year was conducted through a crosstabulation tables and reported in Table 11. During the 2015-2016 school year, there were 218 first-year teachers in the targeted school district. There were 139 first-year with professional licensure. Among first-year teachers with professional licensure, 14 teachers (10%) were in the first professional development quartile and stayed at their same school, 5 teachers (19%) were in the first professional development quartile and moved to another school within the same school district, 19 teachers (14%) were in the first professional development quartile and left the targeted school district and/or the profession; 16 teachers (12%) were in the second professional development quartile and stayed at their same school, 8 teachers (6%) were in the second professional development quartile and moved to another school within the same school district, 10 teachers (7%) were in the second professional development quartile and left the targeted school district and/or the profession; 19
teachers (14%) were in the third professional development quartile and stayed at their same school, 7 teachers (5%) were in the third professional development quartile and moved to another school within the same school district, 8 teachers (6%) were in the third professional development quartile and left the targeted school district and/or the profession; 14 teachers (10%) were in the fourth professional development quartile and stayed at their same school, 12 teachers (9%) were in the fourth professional development quartile and moved to another school within the same school district, 7 teachers (5%) were in the fourth professional development quartile and left the targeted school district and/or the profession. There were 79 first-year teachers with temporary licensure. Among first-year teachers with temporary licensure, 4 teachers (5%) were in the first professional development quartile and stayed at their same school, 4 teachers (5%) were in the first professional development quartile and moved to another school within the same school district, 8 teachers (10%) were in the first professional development quartile and left the targeted school district and/or the profession; 11 teachers (14%) were in the second professional development quartile and stayed at their same school, 5 teachers (6%) were in the second professional development quartile and moved to another school within the same school district, 4 teachers (5%) were in the second professional development quartile and left the targeted school district and/or the profession; 11 teachers (14%) were in the third professional development quartile and stayed at their same school, 11 teachers (14%) were in the third professional development quartile and moved to another school within the same school district, 1 teacher (1%) was in the third professional development quartile and left the targeted school district and/or the profession; 10 teachers (13%) were in the fourth professional development quartile and stayed at their same school, 9 teachers (11%) were in the fourth professional
development quartile and moved to another school within the same school district, 1 teacher (1%) were in the fourth professional development quartile and left the targeted school district and/or the profession.

Overall, first-year teachers with professional licensure (10%) who were in the first quartile for professional development hours completed during the 2015-2016 school year were more likely to stay at their same school than first-year teachers with temporary licensure (5%) who were in the first quartile for professional learning hours completed during the 2015-2016 school year. Additionally, first-year teachers with temporary licensure who were in the third (14%) quartile for professional learning hours completed during the 2015-2016 school year were more likely to move to another school within the school district than first-year teachers with professional licensure (5%) who were in the third quartile for professional development hours completed during the 2015-2016.

<table>
<thead>
<tr>
<th>Descriptor (N = 218)</th>
<th>Professional Licensure</th>
<th>Temporary Licensure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1st PD Quartile</td>
<td>2nd PD Quartile</td>
</tr>
<tr>
<td>Stayer</td>
<td>14 (10%)</td>
<td>16 (12%)</td>
</tr>
<tr>
<td>Mover</td>
<td>5 (4%)</td>
<td>8 (6%)</td>
</tr>
<tr>
<td>Leaver</td>
<td>19 (14%)</td>
<td>10 (7%)</td>
</tr>
</tbody>
</table>
Summary

Chapter four began with an overview of this study including the purpose, methodology, and research questions that guided the study. A description of the population was provided for the targeted school district utilized for this study. Data were analyzed utilizing quantitative methods to respond to the four research questions that investigated the influence of type of licensure, teaching assignment, and professional learning on first-year teacher retention. The results were described using descriptive narratives, statistical analyses, and summary tables.

For research question one, chi-square test of independence was conducted between teaching assignment and type of licensure to identify whether there were differences in type of licensure based on teaching assignment. The findings were not statistically significant. There was more than a 10% chance that this outcome occurred by chance alone. This suggests that type of licensure is essentially the same for general education and special education teachers.

For research question two, a Mann-Whitney U comparative analysis was completed in order to identify whether there was a relationship between teacher assignment and professional learning based on type of licensure. There was not a statistically significant difference between general education teacher with professional licensure or temporary licensure and amount of professional learning hours completed during the 2015-2016 school year. This suggests that amount of professional learning hours completed is essentially the same for general education and special education teachers with professional or temporary licensure.

For research question three, a chi-square test of independence was conducted between retention and teaching assignment, type of licensure, and quartiles based on the amount of professional learning hours completed during the 2015-2016 school year to identify whether
there were differences in retention based on type of licensure based, teaching assignment, and quartiles based on amount of professional learning completed during the 2015-2016 school year. The findings were not statistically significant between retention and teaching assignment. There was more than a 10% chance that this outcome occurred by chance alone. This suggests that retention is essentially the same for general education and special education teachers. There was a statistically significant association between retention and type of licensure. There was less than a 5% chance that this outcome occurred by chance alone. This suggests that first-year teachers with professional licensure are more likely to remain at their same school than first-year teachers with temporary licensure. There was a statistically significant association between retention and quartiles based on amount of professional learning hours completed during the 2015-2016 school year. There was less than a .1% chance that this outcome occurred by chance alone. This suggests that first-year teachers that receive greater levels of support are more likely to remain teaching at their same school.

For research question four, multivariate crosstabulation tables were created for retention by teaching assignment by type of licensure, retention by teaching assignment by professional development quartile, and retention by type of licensure by professional development quartile. Descriptive statistics for retention by teaching assignment by type of licensure suggest that first-year general education with professional licensure stay at their same school at a higher rate (29%) compared to those with temporary licensure (16%) and first-year special education with professional licensure stay at their same school at a higher rate (33%) compared to those with temporary licensure (22%). Descriptive statistics for retention by teaching assignment by professional development quartile suggested that first-year special education teachers appeared
to have a higher percentage of teachers (63%) in the third and fourth quartiles for amount of 2015-2016 professional learning hours completed compared to their first-year general education colleagues (49%). First-year general education and special education teachers who were in the first quartile for professional development hours completed during the 2015-2016 year were the highest percentage of leavers. Descriptive statistics for retention by type of licensure by professional development quartile suggest that first-year teachers with professional licensure (10%) who were in the first quartile for professional development hours completed during the 2015-2016 school year were more likely to stay at their same school than first-year teachers with temporary licensure (5%) who were in the first quartile for professional learning hours completed during the 2015-2016 school year. First-year teachers with temporary licensure who were in the third (14%) quartile for professional learning hours were more likely to move to another school within the school district than first-year teachers with professional licensure (5%) who were in the third quartile for professional development.

In chapter five, an elaboration of data analyses presented in this chapter will be discussed. This chapter will also include implications for first-year teacher retention based on type of licensure, teaching assignment, and professional learning. Recommendations for future research will also be proposed.
CHAPTER FIVE: SUMMARY, DISCUSSION, AND IMPLICATIONS

Introduction

In Chapter 4, the presentation and analysis of data were reported. This chapter contains a summary of the study, discussion of the findings for each of the four research questions, implications for practice, recommendations for further research, and final conclusions. The implications for practice and recommendations for future research are intended to provide further understanding of first-year teacher retention and ways to potentially improve teacher retention practices.

Summary of the Study

School districts across the United States are experiencing teacher shortages and struggling to meet the demand for qualified teachers dating back to the 1980s (Espinoza, Saunders, Kini, & Darling-Hammond, 2018; Rebore, 2015; Sutcher, Darling-Hammond, & Carver-Thomas, 2016). Teacher shortages have been increasing across the United States, reaching critical shortages in several teaching fields (Podolsky, Kini, Bishop, & Darling-Hammond, 2016; Sutcher, Darling-Hammond, & Carver-Thomas, 2016; U.S. Department of Education, 2017). One of the major contributors to teacher shortages is teacher attrition, or teacher turnover (Carroll, 2007; Espinoza et al., 2018; Ingersoll, 2001; Sutcher, et al., 2016). Approximately 90% of the demand for teachers is attributed to teachers leaving the field with approximately 66% of teachers leaving for reasons apart from retirement (Espinoza et al., 2018). Research indicates that 19% to 30% of beginning teachers leave the profession within their first five years (Guha et al., 2016). However, research suggests that teachers typically require one to
three years of teaching experience before making notable gains in teaching quality (Kukla-Acevedo, 2009; Rivkin et al., 2005). Additionally, teachers with inadequate or incomplete preparation leave the profession at three times the rate of those who have a complete preparation experience (Guha et al., 2016). One response to the teacher shortage problem is to recruit teachers from a broader pool of applicants (Florida Department of Education, 2019a; U.S. Department of Education, 2004). Alternative certification pathways allow individuals from different career backgrounds with at least a bachelor’s degree to transition into teaching (U.S. Department of Education, 2004). Individual states regulate the alternative pathways and requirements for certification of the non-traditional teachers (U.S. Department of Education, 2004). Every state in the United States and the District of Columbia offer a non-traditional route to licensure (National Association for Alternative Certification, 2019).

The problem studied was the retention of first-year teachers based on type of certification (professional or temporary), teaching assignment (general education or special education, and professional learning. The purpose of this study was to examine the relationship among first-year teacher retention, type of licensure, teaching assignment, and professional learning. Specifically, this study sought to determine first-year teacher retention based upon whether a cohort of first-year teachers remained at their same school, moved to another school within the same school district, or left the school district or the profession from year to year between 2015 to 2019.

Extant data was requested and provided from the targeted school district to include type of licensure, teaching assignment, and professional learning record. The population of this study included of 218 first-year teachers within one large urban Central Florida school district that began during the 2015-2016 school year. The cohort consisted of all first-year teachers from the
24 elementary schools, 9 middle schools, 3 kindergarten through eighth grade schools, and 10 high schools. The study included four research questions:

1. In what ways do first-year general education and special education teachers differ in the type of credentials they hold (i.e., professional or temporary)?

2. In what ways do first-year general education and special education teachers differ in terms of the amount of professional learning hours completed through their school or the targeted school district based on their type of licensure?

3. In what ways does first-year teacher retention differ by type of licensure, teaching assignment, and professional learning experiences?

4. How and in what ways do the factors influencing retention interact with one another?

This study utilized a quantitative, causal-comparative approach to collect all relevant data for the analysis (Fraenkel, Wallen, & Hyun; 2015). Data were inputted into the SPSS software and data analysis was performed. Research question one utilized descriptive statistics, chi-square test of independence, and a crosstabulation table to identify patterns and trends associated with first-year teacher teaching assignment (general education or special education) and type of initial licensure (professional or temporary). Research question two utilized Mann-Whitney U to identify whether there was a relationship between teacher assignment and professional learning based on type of licensure. Research question three utilized descriptive statistics, chi-square test of independence, and cross-tabulation tables to identify any patterns and trends between retention and teaching assignment and retention and type of licensure. Research question four utilized descriptive statistics and crosstabulation tables to identify how type of licensure,
teaching assignment, and professional learning experiences interact with one another to influence first-year teacher retention.

The findings of this study could generate insight on first-year teacher retention, specifically as it relates to stayers, movers, and leavers (Goldring, Taie, & Riddles, 2014). Further, targeted programs may be developed to support groups of first-year teachers based on their unique needs. Conclusions and recommendations could be used to support school district leaders and school level administrators in determining the practices, guidelines, and programs that are consistent with retaining first-year teachers.

Discussion of the Findings

The following sections will discuss the findings from each of the research questions. The findings will connect to the conceptual framework and literature review provided in Chapter 1 and Chapter 2.

Research Question 1

*In what ways do first-year general education and special education teachers differ in the type of licensure they hold (i.e., professional or temporary)?*

The data obtained from the targeted school district on first-year teacher credentials did not show statistically significant differences in the types of credentials held by general education and special education teachers. Descriptive analysis revealed that first-year general education teachers entering with professional licensure (64%) and temporary licensure (36%) was equivalent to that of special education teachers entering with professional licensure (63%) and temporary licensure (37%). This is consistent with the Florida average of four of every ten (40%)
educators being issued temporary licensure as their first Florida Educator’s Certificate (Florida Department of Education, 2017).

Through Bolman and Deal’s (2012) structural lens, school districts and school-district based leaders are considered “social architects” responsible for ensuring that schools and school-districts function optimally (p.84). One component for the optimal performance of schools is hiring qualified teachers (Hattie, 2009; Ingersoll, 2001; Podolsky, Kini, Bishop, & Darling-Hammond, 2016). The human resource lens centers around the notion of recruiting highly motivated and qualified individuals (Bolman & Deal, 2017). The targeted school district hired an equivalent amount of general education and special education teachers with professional licensure suggesting that these teachers are professionally qualified and prepared to deliver high-quality instruction.

At both the Florida and national level, there are continuous teacher shortages in the field of special education dating back to the inception of the Critical Teacher Shortage Area Support in 1990 (FLDOE; 2019c; USDOE, 2017). One recruitment approach in response to teacher shortages was the creation of alternative preparation programs (Brownell, Bishop, & Sindelar, 2018; Mulvihill & Martin, 2019; Rebore, 2015). Considering 26% of the instructional vacancies in the state of Florida were for special education positions (FLDOE, 2019c), one may believe this to lead to a higher proportion of teachers with temporary certification due to the increased need. However, the equivalent proportion of general education and special education teachers in the targeted school district with professional and temporary licensure suggests that there are not discrepancies based on teaching assignment; and this local trend aligns with the state average of temporary licensures issued throughout the state of Florida (FLDOE, 2017).
Research Question 2

In what ways do first-year general education and special education teachers differ in terms of the amount of professional learning hours completed through their school or the targeted school district based on their type of licensure?

A Mann-Whitney U comparative analysis was completed to identify whether a relationship existed between teacher assignment and professional learning hours completed during the 2015-2016 school year based on type of licensure. Median professional learning hours was not significantly different between general education teachers and special education teacher with professional or temporary licensure. General education teachers with professional licensure had a similar average of professional learning hours completed ($Mdn = 68, \mu = 88.70$) when compared to special education teachers with professional licensure ($Mdn = 93.5, \mu = 92.71$). However, special education teachers had a slightly higher median professional learning hours than general education teachers. General education teachers with temporary licensure had a similar average of professional learning hours completed ($Mdn = 75, \mu = 94.48$) to special education teachers with temporary licensure ($Mdn = 92.5, \mu = 93.70$). However, special education teachers had a slightly higher median professional learning hours than general education teachers. There was not a statistically significant relationship between either general education and special education teachers with professional or temporary licensure using an exact sampling distribution for $U$.

While these results indicate that there is not a statistically significant relationship between teaching assignment and professional learning experiences based on type of licensure, the median 2015-2016 professional learning hours completed by special education teachers was
greater than those of their general education colleagues. This illustrates that special education teachers are completing more professional learning hours than their general education colleagues. Teachers require structured professional learning experiences that result in changes in teacher practices in order to impact student learning outcomes (Darling-Hammond et al., 2017). According to a survey completed by the Council for Exceptional Children, 49% of special education teachers reported that their school district utilized professional learning to enhance the teaching of students with disabilities (Fowler, Coleman, & Bogdan, 2019). The results of this survey illustrates that many special education teachers feel their school districts are utilizing professional learning opportunities to provide special education teachers with targeted supports in instructing students with disabilities. This finding aligns with the belief that professional learning should be content focused and provide teachers opportunities to engage with content specific to instructing students within the teachers’ classroom context (Darling-Hammond et al., 2017).

Moreover, one of the major functions of human resources is to develop teachers to meet the mission and objectives of the school district (Rebore, 2015). Therefore, with respect to Bolman and Deal’s (2017) human resource frame, by offering professional learning opportunities, school-districts are able to support the ongoing growth and development of its teachers. Additionally, when considering Bolman and Deal’s (2017) political frame, there are federal and state policies that require school districts to provide professional learning opportunities that would enhance and promote adequate academic progress for all students. Therefore, the findings from research question two suggest that first-year general education and special education teachers do not have statistically significant differences in terms of the amount...
of professional learning hours completed through their school or the targeted school district based on their type of licensure. However, based on the median professional learning hours, the implication here is that, special education teachers with both professional and temporary licensure take additional professional development compared to their first-year general education colleagues in order to receive targeted professional learning relating to the instruction of students with disabilities.

Research Question 3

*In what ways does first-year teacher retention differ by type of licensure, teaching assignment, and professional learning experiences?*

A chi-square test of independence was conducted between retention and type of licensure, retention and teaching assignment, and retention and professional learning experiences. There was not a statistically significant association between retention and teaching assignment, $\chi^2(2, N = 218) = 1.29, p > .10$ with little, if any, association (Cohen, 1988), Cramer’s $V = 0.08$. This suggests that whether a teacher was assigned to teach general education or special education did not significantly affect whether the teacher remained at their same school, moved to another school in the school district, or left the school district/teaching profession. This finding is inconsistent with current literature that states that the field of special education has one of the highest turnover rates in the teaching profession (Billingsley, 2004; Ingersoll, 2001; McLeskey et al., 2004).
There was a statistically significant association between retention and type of licensure, $\chi^2(2, N = 218) = 7.05, p < .05$ with a small association (Cohen, 1988), Cramer’s V = 0.18. This suggests that first-year teachers with professional licensure are more likely to have less movement between schools than first-year teachers with temporary licensure. This finding is consistent with research that suggests that beginning teachers are more likely to leave the profession if they are unprepared or poorly supported (Woods, 2016b). Approximately 60% of beginning teachers from non-traditional or alternative paths leave the profession compared to 30% of traditionally prepared teachers (Darling-Hammond, 1999). This implies that alternative certification programs should further investigate and ensure they are meeting the need of first-year teachers.

There was a statistically significant association between retention and professional learning hours, $\chi^2(6, N = 218) = 24.50, p < .001$ with a moderate association (Cohen, 1988), Cramer’s V = 0.237. This suggests that first-year teachers that receive greater levels of support through professional learning hours are more likely to remain teaching at their same school. According to Podolsky and colleagues (2016), the amount of support provided to beginning teachers is imperative during the years in which they are transitioning from preparation to practice. Beginning teachers are more likely to leave the profession if they are unprepared or poorly supported (Woods, 2016b). Therefore, this finding is consistent with the research that suggests that professional learning opportunities are effective in supporting beginning teachers and thereby promote the retention of first-year teachers (Darling-Hammond et al., 2017).

The core of Bolman and Deal’s (2017) human resource frame is the relationship between the organization, or the school-district or school, and the people within it. Moreover, the
functions of human resource administration such as teaching assignment, job qualifications, and professional learning opportunities are vital to the retention of beginning teachers (Rebore, 2015). Therefore, the importance of the functions provided by human resource and use of the human resource lens are consistent with the finding from the data provided by the targeted school-district in that retention and type of licensure and retention and 2015-2016 professional learning hours were statistically significant.

Research Question 4

*How and in what ways do the factors influencing retention interact with one another?*

As in research questions one, two, and three, the findings for research question four suggest type of licensure, teaching assignment, and professional learning interact to influence the retention of first-year teachers. Descriptive statistics for retention by teaching assignment by type of licensure suggest that first-year general education with professional licensure stay at their same school at a higher rate (29%) compared to those with temporary licensure (16%) and first-year special education with professional licensure stay at their same school at a higher rate (33%) compared to those with temporary licensure (22%). This finding is consistent with current literature that states that teacher preparation has influences teacher retention (Billingsley, 2004; Hattie, 2017; Ingersoll, 2001; Woods, 2016b). While teaching assignment and type of licensure did not appear to have a strong influence on retention, it is possible that the relatively small number of first-year special education teachers \(N = 27\) compared to general education teachers \(N = 191\) in this study did not offer a population that would be representative outside of the population from the targeted school district.
Descriptive statistics for retention by teaching assignment by 2015 professional development quartile suggests that first-year general education and special education teachers with the highest rates of retention are those who are in the second, third, and fourth quartiles for professional development hours completed during the 2015-2016 school year. Also, there were more special education teachers in the 3rd quartile for professional learning who stayed at their same school (26%) than their general education colleagues (12%). Additionally, there were fewer first-year special education teachers, actually zero first-year special education teachers in the 1st and 2nd quartiles, compared to 12% of their general education colleagues who moved schools. The highest percentages of leavers were general (12%) and special education teachers (19%) who fell in the first percentile for 2015-2016 professional learning hours completed. There was a slightly higher percentage of first-year special education teachers who were in the 1st quartile for professional learning hours who left the school district (19%) compared to first-year general education teachers (12%), however there were zero first-year special education teachers from the 2nd and 3rd quartile for professional learning hours who left the school district compared to 12% of their general education colleagues. Overall, while teaching assignment did not appear to have a strong influence on professional learning quartile and retention, there were several trends. Additionally, it is possible that the relatively small number of first-year special education teachers ($N = 27$) compared to general education teachers ($N = 191$) did not offer a population that would be representative outside of the population from the targeted school district.

Descriptive statistics for retention by type of licensure by 2015 professional development quartile suggest there is not a strong association or relationship between type of licensure and professional learning hours completed based on quartiles on first-year teacher retention. There
were some notable differences between the variables such as there being a slightly higher percentage of first-year teacher with professional licensure in the 1\textsuperscript{st} quartile for professional learning hours with stayed at their same school (10\%) compared to their colleagues with temporary licensure (5\%). Additionally, was also a slightly lower percentage of first-year teacher with professional licensure in the 4\textsuperscript{th} quartile for professional learning hours with stayed at their same school (10\%) compared to their colleagues with temporary licensure (13\%). Moreover, there was a lower percentage of first-year teacher with professional licensure in the 3\textsuperscript{rd} quartile for professional learning hours with moved schools (5\%) compared to their colleagues with temporary licensure (14\%). In addition, there was a slightly higher percentage of first-year teacher with professional licensure in the 1\textsuperscript{st} quartile for professional learning hours with left the school district (14\%) compared to their colleagues with temporary licensure (10\%). Finally, there was also a higher percentage of first-year teacher with professional licensure in the 3\textsuperscript{rd} and 4\textsuperscript{th} quartile for professional learning hours with left the school district (11\%) compared to their colleagues with temporary licensure (2\%). This is inconsistent with current literature which suggests that teacher preparation, both type of licensure and professional learning opportunities, is accepted as a major factor of providing support to first-year teachers (Billingsley, 2004; Darling-Hammond et al., 2017; Ingersoll, 2001; Woods, 2016b). For this reason, teachers who obtain temporary licensure are required to complete coursework related to teaching and teaching pedagogy in order to be eligible for renewable professional licensure (Florida Department of Education, 2019b).

Bolman and Deal’s (2017) four-frame model is based on the notion that organizational leaders, or for the purpose of this study, instructional leaders, should approach issues from four
perspectives, or frames. In order to be most effective, leaders should utilize multiple frames when making decisions regarding issues (Bolman & Deal, 2017). This issue of first-year teacher retention can be viewed through the structural, political, and human resource frames. Research question four analyzes the interactions among type of licensure, teaching assignment, and professional learning experiences and their impact on first-year teacher retention. Current literature suggests that teachers who are well-equipped and well prepared, whether through formal training (type of licensure) or professional learning, are more likely to remain in the profession whereas those who are ill equip or ill prepared are more likely to leave the teaching profession (Billingsley, 2004; Darling-Hammond et al., 2017; Ingersoll, 2001; Woods, 2016b).

For this reason, teachers who obtain temporary licensure are required to complete coursework related to teaching and teaching pedagogy in order to be eligible for renewable professional licensure (FLDOE, 2019b). Dating back to the Elementary and Secondary Education Act (1965), the federal government attempted to influence the educational policies of local agencies by providing funds to those states and schools who placed an emphasis on educational equity through resources such as professional learning in order to promote high standards and accountability. Therefore, offering content focused professional learning opportunities that embed modeling and opportunities for practice increase teacher support and often thereby retention (Eberhard et al., 2000; Darling-Hammond et al., 2017; Woods, 2016a). The findings of the retention by type of licensure by 2015 professional development quartile cross-tabulation table support the current literature and suggests that instructional leaders should emphasize teacher support as a way to promote teacher retention.
Additionally, research suggests that the field of special education has one of the highest turnover rates in the teaching profession (Billingsley, 2004; Ingersoll, 2001; McLeskey et al., 2004). One way to increase the retention of first-year special education teachers is to provide support through professional learning specific to the individual needs of teaching students with disabilities (Brownell & Smith, 1992; McLeskey et al., 2004). While the findings of this research question did not suggest large differences between first-year general education and special education teachers as it related to retention and type of licensure and retention and 2015 professional development quartile, it is recommended that further research investigate the relationship between the impact of teaching assignment and other factors that influence first-year teacher retention.

**Implications for Practice**

The retention of first-year teachers has many implications for K-12 school-district and school level instructional leaders including, but not limited to, financial impacts, growth of instructional staff, and student academic success (Carver-Thomas & Darling-Hammond, 2017; Ingersoll & Perda, 2011). It was estimated that teacher attrition cost states approximately $1 billion to $2.2 billion a year (Ingersoll & Perda, 2011). Additionally, it is suggested that the effects of teachers has one of the largest influences on student learning (Hattie, 2009). Using Bolman and Deal’s (2017) four-frame model as a conceptual framework, implications for the structural, political, and human resource frames were investigated. Moreover, there are implications for teacher preparation program as it relates to first-year teacher preparation and support.
The present study was developed to investigate first-year teacher retention according to factors identified in the current literature: type of licensure, teaching assignment, and professional learning. The findings of this study support implication and recommendations for policies, guidelines, and practices related to first-year teacher retention. Based on these findings, implications that can apply to school-district, school level, and teacher preparation program instructional leaders are provided. For the purpose of these implications, support is defined as actions of the individuals within the school district or school to promote the capacity of first-year teachers through various practices, such as professional learning, induction, mentoring, collaboration, coaching, feedback, modeling, and other research-based best practices (Darling-Hammond et al., 2017; Woods, 2016).

1. Ongoing support is available from the teacher preparation program during the first-year teacher’s first two years teaching if requested by the school-district. Teacher preparation programs provide learning opportunities for pre-service teachers that consist of pedagogical knowledge as well as modeling, active practice with feedback, and opportunities for collaboration. These learning opportunities cover an array of topics, including, but not limited to evidenced based best teaching practices, differentiation and scaffolding, classroom management, and other areas to support teacher success. However, research suggests that pre-service student teaching, or internship, experiences is one of the major components for first-year teacher retention (Connelly & Graham, 2009; Eberhard et al., 2000). Therefore, teacher preparation programs should expand and/or strengthen their internship programs in order to
provide more opportunities for graduating pre-service teachers to engage in teaching practices with continuous supports.

2. School districts and/or schools should provide first-year teachers with information around the various avenues for receiving support and guidance at the school-district and school levels, including, but not limited to, induction programs, mentors, instructional coaches, and other school district supports.

3. Increased support and professional learning opportunities should be provided for first-year teachers entering with temporary licensure. First-year teachers with temporary licensure have different professional experiences than first-year teachers with professional licensure and therefore different require and benefit from different types of support. Differentiated professional learning opportunities should be provided based on their individual areas of need. Professional learning may include opportunities related to certification examination preparation, evidenced-based best teaching practices, more detailed classroom management strategies, or any other teacher supports related to student success.

4. Mentoring and induction programs should be utilized to support all first-year teachers during their beginning years. All schools should follow similar guidelines, policies and practices which should be based on effective research-based components. Induction coordinators and mentors should be provided with professional learning, on-going support, and opportunities for collaboration with one another as well as their first-year teachers. Mentor matching should be considered so that the teaching
assignment and professional experiences of the mentor aligns with the needs of the first-year teacher.

5. Professional learning should include how concepts and ideas apply and looks for both general education teachers and special education teachers. Special education teachers often require additional professional learning in order to support students with disabilities. Professional learning presented should embed the application relevant to the instruction of students with disabilities as well as provide possible accommodations and modifications. By making all professional learning relevant to all teachers it will encourage collaboration and support among general education and special education teachers.

6. School-based administrators should be more involved in first-year teacher supports. This may include, but not be limited to, completing non-evaluative observations that provides targeted feedback, collaborating with induction coordinators and mentors to discuss how first-year teachers are adjusting to the instructional demands and any individual or group supports that may be needed, and placing an increased focus on reduced workload for first-year teachers so that they may have opportunities to collaborate with their mentor, other first-year teachers, and their teams.

Recommendations for Further Research

Data were collected to test four research questions that guided the study. Based upon the findings, this study generated suggestions for future research regarding the retention of first-year
teachers, specifically as it relates to type of licensure, teaching assignment, and professional learning.

1. A follow-up study could utilize a mixed-methods research design that allows for deeper analysis in which interviews are utilized to provide further insight from the perspective of the first-year teachers.

2. A follow-up study could be completed to analyze the influence of type of licensure, teaching assignment, and professional learning on first-year teacher retention that began the profession in 2015-2016 after ten years in the classroom.

3. Future studies could analyze the influence of type of licensure, teaching assignment, and professional learning on retention and further delineate teaching assignment to the elementary, middle, and high school level.

4. Future studies could investigate special education teacher retention by further delineating teaching assignments for special education teachers into more specific types of special education services such as support facilitation, resource, self-contained, or inclusion.

5. Due to the population of this study being limited to one school district which affects the generalizability, this study could be replicated in other school districts within the state of Florida as well as in other states.

6. This study was limited to traditional K-12 schools within the targeted school district, future studies could expand the population to include non-traditional schools such as separate day schools, charter schools and/or private schools.
7. Future studies could further investigate the influence of type of licensure, teaching assignment, and professional learning on first-year teacher retention by coding the individual courses within the first-year teachers’ in-service records to identify if there are any patterns or trends.

8. Future studies could further investigate the influence of teacher support, such as mentoring, induction, and professional learning on first-year general education and special education teacher retention.

9. Future studies could further investigate teacher retention based on different definitions of retention.

10. Future studies could further investigate the various pathways to alternative certification as a factor on teacher retention.

Conclusion

First-year teacher retention is an important aspect related to continuous teacher shortages. According to Espinoza and colleagues (2018), approximately 90% of the demand for teachers is attributed to teachers leaving the field. Current literature suggests several factors contributing to the retention of first-year teachers such as type of licensure, teaching assignment, and professional learning opportunities (Billingsley, 2004; Darling-Hammond et al., 2017; Goldring, Taie, & Riddles, 2014; Ingersoll & Smith, 2004; Podolsky et al., 2016; Sutcher et al., 2016). The findings of this study expanded upon the work of previous researchers in the area of first-year teacher retention. The findings of this study suggest that special education teachers completed more professional learning hours during the 2015-2016 than their general education colleagues;
however, this finding was not statistically significant. The findings of this study related to retention and type of licensure and retention and professional learning hours completed were statistically significant. Moreover, while the findings generated implications for practice for instructional leaders at the school-district and school level, the population was derived from one school district in the Central Florida area. Therefore, caution should be used if generalized to similar school districts. It is recommended to replicate this study on a larger scale, such as state or national level.

The current study was completed to investigate the impact of type of licensure, teaching assignment, and profession learning experiences on first-year teacher retention. By identifying patterns and trends, school-districts and school level instructional leaders will be able to refine policies, guidelines, and initiatives that will influence first-year teacher retention. This will shift the organizational culture within the school-district and individual schools to foster teacher support and promote first-year teacher retention.
APPENDIX A
INSTITUTIONAL REVIEW BOARD APPROVAL
July 25, 2019

Dear Stephanie Stan:

On 7/25/2019, the IRB reviewed the following protocol:

<table>
<thead>
<tr>
<th>Type of Review</th>
<th>Initial Study</th>
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<tbody>
<tr>
<td>Title of Study</td>
<td>TEACHER SHORTAGES: AN ANALYSIS OF THE RELATIONSHIP AMONG TEACHER RETENTION, TYPE OF CERTIFICATION, AND PROFESSIONAL LEARNING IN ONE URBAN CENTRAL FLORIDA SCHOOL DISTRICT</td>
</tr>
<tr>
<td>Investigator</td>
<td>Stephanie Stan</td>
</tr>
<tr>
<td>IRB ID</td>
<td>STUDY00000732</td>
</tr>
<tr>
<td>Funding</td>
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</tr>
<tr>
<td>Grant ID</td>
<td>None</td>
</tr>
<tr>
<td>IND, IDE, or HDE</td>
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</table>
| Documents Reviewed | • Stan_HRP-251 - FORM - Faculty Advisor Review.pdf, Category: Faculty Research Approval;  
                        • Stan_HRP-250 - FORM - Request for NHRV_V2.docx, Category: IRB Protocol; |

The IRB determined that the proposed activity is not research involving human subjects as defined by DHHS and FDA regulations.

IRB review and approval by this organization is not required. This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made and there are questions about whether these activities are research involvinghuman in which the organization is engaged, please submit a new request to the IRB for a determination. You can create a modification by clicking Create Modification / CR within the study.

If you have any questions, please contact the UCF IRB at 407-823-2901 or irb@ucf.edu. Please include your project title and IRB number in all correspondence with this office.

Sincerely,
APPENDIX B
TARGETED SCHOOL DISTRICT RESEARCH REQUEST APPROVAL
October 28, 2019

Stephanie Stan

Dear Ms. Stan:

This letter is to inform you that we have received your request to conduct research in our School District. Based on the description of the research you intend to conduct, I am pleased to inform you that you may proceed with your work as you have outlined. Please be advised that this approval is based on the understanding that a school’s participation is completely voluntary and left to the discretion of each building administrator.

Finally, be reminded that all information obtained for the purpose of your research must be dealt with in the strictest of confidentiality. At no time is it acceptable to release any student or staff identifiable information. Upon completion of your research, please provide our office with a copy of your results.

I wish you the best of luck in your future endeavors. If I can be further assistance, please do not hesitate to contact me.

Sincerely,

[Name]
Director
Research, Evaluation & Accountability

Student Achievement – Our Number One Priority
Districtwide Accreditation by the AdvancED Accreditation Commission
LIST OF REFERENCES


Elementary and Secondary Education Act of 1965,


FLA. STAT. § 1012.07 (2016).


