

PERCEPTIONS OF PRINCIPALS REGARDING THEIR PRINCIPAL PREPARATION  
PROGRAM

A Dissertation

by

AMANDA MARIE COVARRUBIAS

BS, Texas A&M University - Kingsville, 2016  
MEd, Texas A&M University - Kingsville, 2017

Submitted in Partial Fulfillment of the Requirements for the Degree of

DOCTOR OF EDUCATION

in

EDUCATIONAL LEADERSHIP

Texas A&M University-Corpus Christi  
Corpus Christi, Texas

December 2023

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This dissertation meets the standards for scope and quality of  
Texas A&M University-Corpus Christi and is hereby approved.

Christopher Benedetti, Ph.D.  
Chair

Bernadine Cervantes, Ed.D.  
Committee Member

Doyne Scott Elliff, Ed.D.  
Committee Member

Susan Garza, Ph.D.  
Graduate Faculty Representative

December 2023

## ABSTRACT

This dissertation examines the perceptions of Texas principals regarding how adequately they felt their preparation program trained them for the principalship. Across the U.S., variations in curricula and preparation exist in principal preparation programs. Varied preparation result in leaders who are not prepared to face the demanding challenges of the principalship. This quantitative study used the perceptions of principals who have gone through these preparation programs to analyze this problem. This study found a lack of variation in preparation and an overall high level of perceptions of adequate preparation in all eight NELP Standards. Preparation programs should continue in their current methods of aligning their curricula to best practices and following national standards.

## DEDICATION

I dedicate this to my family, for your constant love and support through my education journey. To my daughter, let this stand as proof that you, too, can do and be anything you want to be.

## ACKNOWLEDGEMENTS

I would like to express my deepest gratitude to my professor and chair of my committee, Dr. Benedetti, for his mentorship and feedback throughout this process. I also could not have undertaken this journey without my dissertation committee, who generously provided knowledge and expertise. Additionally, this endeavor would not have been possible without the generous support from the Robstown Education Foundation, which helped finance my education.

I am also grateful to my classmates and cohort members, for their moral support and feedback. Thank you also to the librarians who aided in finding obscure research for this project. I would also like to thank the Texas principals who participated in this study.

Lastly, I would be remiss in not mentioning my family, especially my parents, spouse, and children. Before I started my education journey, my mom instilled in me the importance of education. Thank you, for teaching me this important value and keeping me fed throughout this journey. To my dad, Ronald Bissett, thank you for always being someone I could trust and turn to when I needed to vent. To my grandma, Hortencia Flores, thank you for showing me the value of hard work and for your constant support. To my husband, Jeremy, thank you for keeping my spirits up and pushing me to cross the finish line. To Hurley and Priscilla, thank you for the sacrifices you made. You both served as my motivation to complete this journey. I would also like to thank my mother-in-law, Terry, for giving me the good kick I needed to get back in school to start and finish this terminal degree.

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## CHAPTER I

### INTRODUCTION

Principal leadership is the second leading school-related factor influencing student learning across all grade levels (Grissom et al., 2021; Sebastian & Allensworth, 2012). Principals set the expectations and vision of a school by building a climate conducive to learning (Day et al., 2016; Hitt & Tucker, 2015), applying recruitment and retention strategies (Burkhauser et al., 2012), and supporting teachers through their instructional leadership (Grissom & Bartanen, 2019; Grissom et al., 2013; Hitt & Tucker, 2015; Simon & Johnson, 2015), which ultimately leads to improvement. Given the importance of principals' leadership in several factors of school success, principal preparation programs play a crucial role in facilitating that success (Grayson & Pescatore, 2020). There is a need to study the perspective of principals regarding how well these programs have trained them for the principalship.

The principalship begins well before the principal walks onto their campus. Preparation begins with the training of aspiring principals. Principal preparation programs are tasked with teaching the knowledge and skills required for new principals to be effective leaders (Grissom et al., 2019). This dissertation analyzed one aspect of the profession, the perceptions of principals related to their completed preparation programs. The national standards that identify the required knowledge and skills beginning principals should possess are the National Educational Leadership Preparation (NELP) standards, which are heavily supported by research (Brooks et al., 2010; Dexter et al., 2017; Frick, 2011; Frick et al., 2013; Goddard et al., 2010; Grissom & Loeb, 2011; Heck & Moriyama, 2010; Kearney et al., 2013; Kose, 2011; Kurland et al., 2010; Louis et al., 2010; Murphy & Torre, 2014; Orr et al., 2010; Orr & Orphanos, 2011; Penuel et al., 2010; Price, 2012; Scanlan & Lopez, 2012; Sebastian & Allensworth, 2012; Theoharis &

Haddix, 2011; Theoharis & O'Toole, 2011; Thoonen et al., 2011; Valentine & Prater, 2011; Young & Crow, 2017). The NELP standards highlight the key knowledge and skills required of beginning principals and serve as a way to analyze the effectiveness of educational programs in training aspiring principals. This study analyzed the perceptions of principals regarding how well their program trained them in the eight standards outlined by NELP. Following this study, a clearer picture of the preparation process and potential gaps in beginning principal knowledge and skill training will be discussed so programs can be redesigned to anticipate and meet the needs of aspiring principals.

This chapter will provide the background and context of the study by examining the historical changes to the roles and responsibilities of the principalship, the cultural perspectives surrounding the principalship, and the social changes impacting the principalship. Following the background and context, the purpose of the study will be explained, as well as the research question that will be answered by the study. In addition, the rationale and significance of the study will be discussed. The chapter will conclude with the assumptions and limitations of the study, as well as key operational definitions.

### **Statement of the Problem**

The problem is principal preparation programs in the United States vary in their effectiveness in developing those interested in leading K-12 schools. The National Association of Secondary School Principals (2017) has identified a gap between training and practice in principal preparation programs, citing the gap as a barrier preventing headway made on the national principal shortage. Though principal preparation programs have accreditation standards they must adhere to, there is variation in the quality and level of preparation each program offers (Anderson & Reynolds, 2015; Davis, 2010).

This issue exists because each institution develops its own curriculum, or principal preparation program (Brown, 2006; Green, 2012; Vogel & Weiler, 2014). Though changes have been made in the creation and adoption of national standards, issues of standardization still lie at the state level. While universities within the same state will have the same state requirements to which they must adhere, variations in the delivery and alignment to professional standards of practice may exist. This variance in principal preparation programs (PPPs) is the reason for further examination of the perceived success of the programs and several studies have been conducted as a result of the variance. Historically, states have seldom required universities to collect outcomes data for graduates from PPPs (Briggs et al., 2013; Fuller & Hollingworth, 2016). Outcomes data refers to the placement rate, retention rate, and graduates' effectiveness in improving student achievement (Fuller & Hollingworth, 2016; Grissom et al., 2018). Briggs et al. (2013) found 29 states do not collect or require the collection of key outcomes data of PPPs. This creates a challenge for researchers, institutions, individual programs, and the state to determine whether PPPs are meeting the objectives of these preparation programs (McCarthy, 2015). Additionally, there are few empirical studies on the outcomes of PPP graduates (Donmoyer et al., 2012; Fuller & Hollingworth, 2017; Orr & Orphanos, 2011).

In their attempt to study outcomes of PPP graduates, Donmoyer et al. (2012) studied four graduates of one exemplary program and the schools they led. Though they concluded there is in fact a linkage between student achievement, principal behavior, and PPPs, they were not confident in stating PPPs significantly impacted the principals' method and effectiveness to lead. Fuller and Hollingworth (2017) focused on evaluating PPPs using only the placement rates of principals. Their methodology, by their standards, was too complex and there were too many variables that were not included in this study. They argued more outcomes data is required in

order to effectively evaluate PPPs. Orr and Orphanos (2011) also studied exemplary programs. The study focused on the influence these programs had on what principals learned, the practice and application of their knowledge, and how it impacted school improvement and the learning climate of the schools they went on to lead. Exemplary programs were significantly associated with teaching effective leadership practice. This integration of practice in the program was shown to be positively associated with school improvement and school climate. As these studies demonstrate, the outcomes of PPPs are vital to ensure these programs produce qualified graduates who find jobs post-graduation and are successful in those positions (Donmoyer et al., 2012; Ni et al., 2016).

In response to researchers' concern about variations in PPPs (Taylor Backor & Gordon, 2015; Ni et al., 2016), the Wallace Foundation launched the University Principal Preparation Initiative to improve university-based school leadership programs (Burns et al., 2023). In analyzing why principals leave their jobs, Levin and Bradley (2019) found inadequate training and professional development to be a reason for turnover. Hess and Kelly (2007) concluded insufficient orientation of program content to practical school leadership and management skills. Grissom et al., (2019) studied PPPs and found variations in the exam results of students, in addition to variance in job market outcomes and job performance. These studies support Levin and Bradley (2019), which highlighted high-quality preparation programs as one area of professional learning opportunities. Elements of the high-quality programs included an internship and teaching the required skills to be an effective leader, such as establishing and maintaining a positive school culture and climate.

## **Background and Context**



An ever-evolving world has resulted in numerous alterations to the principalship, including changes to the position's name, the tasks that are associated with the position, and even cultural shifts (Phillips, 2013; Vogel & Weiler, 2014). Given the shift in duties and responsibilities, more research needs to be done to determine how well individuals are prepared to take on these new obligations of the role. To better understand the background in the preparation of aspiring principals, the following paragraphs will review three important contexts. The historical context section will provide the history of principal preparation programs and the history of the development of national standards. The cultural background and context section will review principals' feelings in regard to how well programs have trained them, and specifically, areas of training that require improvement. Lastly, the social background and context section will discuss the external factors impacting the principalship.

### **Historical Perspective**

Interest in studying principal preparation is relatively new (Dugan, 2017; Murphy, 2006). The formal training of school leaders is a burgeoning area of research, with little information on the subject in decades before 1900 (Gumus et al., 2018; Normore & Issa Lahera, 2019). Murphy (2006) documented the historical context of leadership preparation programs, dividing this history into four eras: the ideology era (pre-1900); the prescriptive era (1900-1945); the professionalism/behavioral science era (1946-1985); and the dialectic, emerging era (1985-present) as presented below. The following paragraphs examine the history surrounding principal preparation. Beginning with the development of programs specifically for educational leaders, an exploration of the different eras and key contributions of each era will be discussed.

#### ***The Ideology Era***

The ideology era is characterized by a lack of formal development of preparation programs before the Civil War (Murphy, 2006). Up until that point in time, preparation programs were not viewed as an essential component of the operation of schools. As Gregg (1969) states, early education had a straightforward structure and was not thought of as a complex administrative undertaking. Instead, school leaders learned on the job on a trial-and-error basis, with little formal preparation needed, required, or provided (Murphy, 2006). The ideology era viewed the formal education required by teachers as sufficient for more senior leadership positions (Popper, 1982).

### ***The Prescriptive Era***

The prescriptive era saw various alterations to the training of school leaders. Colleges of education began offering programs for the preparation of future leaders (Erickson, 1979), hiring professors with experience in school administration to teach classes specifically for those pursuing careers as school administrators (Murphy, 2006). The growth and early development of these programs were witnessed during this time (Moore, 1964). The values of the era drove focus of school leaders on humanity's ability to confront and solve social issues, commitment to equality of educational opportunities, and a belief in democratic values (Normore & Issa Lahera, 2019).

### ***The Professionalism/Behavioral Science Era***

A disruption in American society following World War II saw another change in the preparation program of school leaders (Griffiths, 1988). The previous era's values were reevaluated, and the debate over the role of preparation programs and a critical inquiry into the curriculum and pedagogical frameworks led to criticism and a demand for stronger programs to be developed to protect against ill-equipped leaders (Culbertson, 1964). This era saw the

formation of several organizations for educational leadership, to include the National Conference of Professors of Educational Administration (NCPEA), an important first step in connecting educational administrative scholars across the nation (Murphy, 2006). Another development was the formation of the University Council for Educational Administration (UCEA). The UCEA's main objective was to enhance graduate programs in educational administration through coordinating and distributing research, exchanging ideas, and training activities (Campbell et al., 1987).

### ***The Dialectic Era***

The dialectic era has seen the criticism and scrutiny of preparation programs and the influence of external factors on these programs has been explored. External factors, such as changing school environments, have led to the redesign and adjustment of programs to better train school leaders (Anderson & Reynolds, 2015; Murphy, 2006). Factors such as lack of trust from stakeholders (Hawley, 1995), low socioeconomic levels of students and their families (Goldring & Taie, 2018; Normore & Blanco, 2006), decreased government support (Cibulka, 1999), and equality and equity issues (Esposito & Normore, 2015) have been studied to determine their influence on school leaders. Though this era has seen a shift away from hard science measures, the dialectic era has led to many changes executed in preparation programs based on the current understanding of best practices.

### **Cultural Perspective**

The term “cultural” can be defined in many ways. This study refers to cultural perspective as the attitudes and beliefs held by a group or an individual. These are internal factors that influence the group or individual. The majority of PPPs found graduates of these programs felt their program contributed to the development of their leadership abilities and

skills. Graduates also reported a positive sense of preparation from these programs (Beard, 2018; Braun et al., 2013; Orphanos & Orr, 2014). Research has shown mixed results when analyzing the impact of aspiring principal's training and experience in a PPP based on gender (Burton & Weiner, 2016; Hallinger et al., 2016; Davis & Anderson, 2021). Yet, once graduates enter the principalship, there is less research on their perspective of PPPs and their efficacy in principal preparation once graduates are established in their new positions. Existing research, however, indicates that currently serving principals report low self-efficacy due to the responsibilities and demands of the job (Boyce & Bowers, 2016; Snodgrass Rangel, 2018). Versland (2016) studied self-efficacy in PPPs. Though little research exists regarding how self-efficacy is developed in candidates of PPPs, their research found the benefits of integrated experiences in the development and sustainability of self-efficacy (Ikonomopoulos et al., 2016). Integrated experiences within a PPP that allow for self-efficacy to be built was shown to increase principals' ability to provide instructional leadership in the campus. This study shows the importance and practical approach to building a principal's self-efficacy through a PPP.

Additionally, environmental factors related to the position lead many beginning principals to feel inept in their roles. Low self-efficacy may lead principals to avoid the responsibilities of the role if they believe they are unable to commit fully and succeed in these tasks (Darling-Hammond et al., 2022). Darling-Hammond et al. (2022) found efficacy in principals increased when PPPs utilized a field-based internship coupled with an experienced mentor. Though substantial research exists regarding the importance of an internship (Anast-May et al., 2011; Campanotta et al., 2018; Darling-Hammond et al., 2010; Darling-Hammond et al., 2022; Orr, 2010), many programs still do not require field-based learning as part of PPP curriculum (Anderson & Reynolds, 2015; Mendels, 2016).

While research has shown PPPs provide aspiring principals with the knowledge and skills to lead a school, these programs and the preparation they provide do not address all aspects of the principalship. A Gallup survey (2017) found principals overwhelmingly believe they lacked the necessary training and confidence to effectively support students' social-emotional learning and development. Mahfouz and Gordon (2021) supported this finding in their research, adding programs also failed to focus on how to promote the personal well-being of the principals in the preparation programs. Individual flourishing is important for principals to meet all the demands of the job and successfully lead their school (Orr, 2010).

### **Social Perspective**

Changes in student demographics and related sociocultural determinants are other factors to consider when examining principals and how adequately they perceive they are prepared to lead. Across the field of education, those serving in rural locations struggle with a lack of resources and adequate training to meet the needs of their students (Hoover & Erickson, 2015). The preparation of principals to address social issues related to student demographics, such as equity and meeting the needs of all student groups, has not been fully addressed in current research. Of the research that has been completed, Johnson and Young (2019) found more than half of principals felt their program did not prepare them to support the needs of students with high-incidence disabilities. In addition, their research found nearly 40% of principals felt unprepared to provide an equitable education to students of color and those with low socioeconomic status. In their study on equitable leadership practices regarding lesbian, gay, bisexual, transgender, intersex, and questioning (LGBTIQ) students, O'Malley and Capper (2015) surveyed 53 different university faculty. The results of this study found LGBTIQ content was only marginally integrated into the preparation programs of principals.

Slater et al. (2018) concluded after a study of PPPs, many graduates felt their exposure to the role in the program was managerial and did not provide a picture of the complete experience of the principalship. Duncan et al. (2011) reported another gap in preparation programs related to evaluation and supervisory roles. Principals in this study reported not feeling adequately prepared by their PPP to meet the demands of evaluating and supervising school staff. The findings stated principals who felt unprepared in these areas indicated their program gave them a general awareness of personnel and evaluation content but did not address specific issues or strategies related to this content.

### **Conceptual Framework**

The NELP standards served as the conceptual framework for this study (NPBEA, 2018). These standards are used for accreditation by the Council for the Accreditation of Educator Preparation (CAEP, 2017), and are aligned to the CAEP principles and PSEL standards. The extensive research done on the creation of these standards (Brooks et al., 2010; Dexter et al., 2017; Frick, 2011; Frick et al., 2013; Goddard et al., 2010; Grissom & Loeb, 2011; Heck & Moriyama, 2010; Kearney et al., 2013; Kose, 2011; Kurland et al., 2010; Louis et al., 2010; Murphy & Torre, 2014; Orr et al., 2010; Orr & Orphanos, 2011; Penuel et al., 2010; Price, 2012; Scanlan & Lopez, 2012; Sebastian & Allensworth, 2012; Theoharis & Haddix, 2011; Theoharis & O'Toole, 2011; Thoonen et al., 2011; Valentine & Prater, 2011; Young & Crow, 2017), illustrate it is the current understanding of best practices in regard to the skills and knowledge beginning principals should possess. In analyzing PPPs, these standards served as an anchor for the study since the standards outline both curricular requirements in addition to the knowledge and skill outcomes aspiring principals should obtain following the completion of these programs.

The NELP standards are imperative to ensure PPPs cover the necessary knowledge and skills beginning principals should possess to be effective.

### **Purpose of the Study**

The purpose of this quantitative, non-experimental, retrospective, descriptive study (O'Dwyer & Bernauer, 2013) was to examine principals' perception of the adequacy of training they received in their principal preparation program (PPP). The study will use the perceptions of principals to determine the effectiveness of their PPP to prepare beginning principals for the principalship. This study addressed unequal preparation by analyzing the preparation and training based on the perceptions of current principals. Using this approach allowed for any gaps in knowledge and skills to be identified and, ideally, actively addressed by program designers to better equip individuals for the principalship.

Mastering the NELP standards promotes principal candidates' ability to lead effectively and collaboratively to increase opportunity and achievement for all students (Young et al., 2018). The eight NELP standards were assessed based on the survey responses of participants of this study. Other demographic elements of PPPs and the current job setting of the participants were studied as well. Through analysis of principals' perceptions of training acquired in PPPs, the preparedness of those principals was studied. The participants were principals who currently serve in the state of Texas and have completed a PPP.

### **Research Question**

The preparation of principals is the first step in pursuit of the principalship. The initial training is, ideally, what sets aspiring principals up for success (Grissom et al., 2019). These programs vary from one university to the next (Anderson & Reynolds, 2015), but there are some guidelines and best practices which seem to promote quality assurance. These preparation

programs should provide the required training for beginning principals who can then update and increase their foundational knowledge through workshops and professional development with their school as needed (Dexter et al., 2022). Yet, given the varied preparation, the principal preparation programs (PPPs) should be studied to determine if a disconnect exists between preparation and active engagement in the role of principal. This study used a quantitative approach to answer the following research questions:

Research Question 1: Is there a difference in principals' perceived adequacy of training based on the type of program completed?

Research Question 2: Is there a difference in principals' perceived adequacy of training based on how many years they have served as a principal?

Research Question 3: Is there a difference in principals' perceived adequacy of training based on the Education Service Center region in which they currently serve?

These research questions helped study variances in programs' preparation by comparing perceptions of the preparation of current principals as they actively serve in schools across the state of Texas.

As stated, university programs will vary, but PPPs should address the components found in the NELP standards. These standards address the cultural and societal changes to the principalship. Currently, they serve as best practice for the areas PPPs should address in their curriculum to prepare individuals to enter the principalship (NPBEA, 2018). With that in mind, the research questions of this study were answered to determine if a difference exists in principals' feelings about the adequacy of training received in their preparation program based on program type, years of principal experience, and the Education Service Center region in which they currently serve. The constructs found in NELP are the underlying constructs found in



many national and state standards (Martin et al., 2016; NBPEA, 2018; New York State Education Department, 2018), thus these constructs are valid to study any principal preparation program. Since many programs have been redesigned to align with these national standards (Young et al., 2017), it is important to see the extent of the alignment of PPPs to the research-based NELP standards.

### **Rationale for Study**

The rationale of doing a quantitative, non-experimental, retrospective, descriptive study (O'Dwyer & Bernauer, 2013) on principal preparation programs was to examine principals' perceptions of the efficacy of their preparation programs. A quantitative approach allows for generalizations to be made, as well as the analysis of individual variables and their impact on the outcomes of principal preparation programs. Since this research is focused on measuring a set of variables, to examine principals' perceptions of the training acquired in their preparatory program, a quantitative approach was best (Creswell & Creswell, 2018). A non-experimental study examines naturally occurring phenomena, PPPs in this case. Retrospective studies allow for past phenomena to be explored to better identify relationships in the variables being studied. A retrospective approach allowed the past phenomena of participating and completing a PPP to be explored with the relationship of a principal's current assigned school setting and size. Descriptive studies allow for the characterization of attributes in isolation or combination (O'Dwyer & Bernauer, 2013). This study looked at descriptors such as demographic information of principal participants, the demographics of students in their current school, and attributes of their completed PPP.

The target sample was individuals who are currently serving as principals in the state of Texas. Convenience sampling was done since the survey was sent out to all email addresses

found on the TEA directory list, with no control as to who would complete the survey (O'Dwyer & Bernauer, 2013). Data was collected via surveys and organized on an Excel sheet with categorical variables. From the data, the researcher hoped to learn about the perceptions of individuals who have completed a PPP and identify areas of change to PPPs in order to better prepare individuals for the principalship.

### **Significance of the Study**

There is a gap in the literature in analyzing PPPs using a quantitative approach, with several studies completed using a qualitative approach (Johnson & James, 2018; Reyes-Guerra & Lochmiller, 2016; Vaughn & Olivares Ortiz, 2016). Qualitative studies have examined the need for district-university program collaboration, field experience, and the development of critical skills in these programs (Johnson & James, 2018; Maheady et al., 2016; Sanchez et al., 2019). Others have focused on the redesign of programs to meet various state and local needs (Grissom et al., 2019; Shaked et al., 2018). Few studies have been done on PPPs using a quantitative approach, to include Anderson and Reynolds' (2015) analysis of PPPs in nine states, and Fuller and Hollingworth's (2016) analysis of placement rates of Texas' PPPs. By analyzing PPPs using a quantitative approach, this research hoped to add to existing knowledge and fill the gap remaining following these studies.

This study is needed to analyze the alignment of PPPs to national standards, which describe what beginning principals should know and be able to accomplish in their roles. This is needed due to the lack of empirical research on principal preparation programs' outcomes (Anderson & Reynolds, 2015). National standards were developed using best practices, years of research, and multiple stakeholders' input. Program alignment to national standards provides a bridge between theory and best practice (Woulfin, 2017). With continued variances in programs

(Anderson & Reynolds, 2015; Vogel & Weiler, 2014), it is important to get ahead of this problem by addressing it through the initial training of principal candidates studying in these preparation programs. This study contributes to academic research by calling for a change in PPPs to better align with best practices as outlined in national standards.

Principal preparation programs are designed to educate aspiring principals with the knowledge and skills to perform the various roles and responsibilities delegated to this role (Mendels, 2016; Taylor Backor & Gordon, 2015). While a variety of approaches have been taken to prepare aspiring principals, little research has been done in analyzing the outcomes of PPPs (Donmoyer et al., 2012; Fuller & Hollingworth, 2017; Orr & Orphanos, 2011). This research identified potential gaps in knowledge and skills not included or fully covered by PPPs. By first identifying these gaps, PPPs can work on how to address these gaps in learning to better prepare effective school principals. For the education community, this research addresses the need for consistency and improved adequacy within principal preparation programs by which aspiring principals can be better equipped and trained. Through the redesign of programs to be more consistent and adequate in their methods of teaching, aligning with best practices, incoming principals will be better prepared (Mendels, 2016; Vogel & Weiler, 2014; Woulfin, 2017).

### **Assumptions and Limitations**

It is assumed participants of this study were honest in their responses. The email list of participants from TEA was assumed to be accurate and complete as TEA has certain transparency and record-keeping procedures it must adhere to. There were two limitations of this study. First, participants may not be able to recall their principal preparation experience. To mitigate the impact this may have on the study, participants will be asked how many years removed they are from completing their preparation program. To determine whether perspectives

of NELP preparedness levels vary with the amount of time that has passed since finishing a program of preparation, a one-way ANOVA was conducted. This helped in the analysis by determining if this time results in lack of recall which significantly influenced the responses. Secondly, the surveys were sent out during the summer break and not during the normal school year. An additional week was allotted in an attempt to mitigate this limitation given the low response rate.

Delimitations of a study are specific choices made by the researcher based on the boundaries of the study. Delimitations in a study include the choice of questions, variables, theoretical framework, and methodology (Simon & Goes, 2013). Two specific delimitations were present in this study: the use of convenience sampling and the use of Dodson's field experience survey. Convenience sampling was used since it provided the best chance to have the highest number of participants (O'Dwyer & Bernauer, 2013). Dodson's survey, though it lacks clear reliability statistics, is the only survey available that encompasses the NELP-specific standard of an internship (Dodson, 2015; Dodson; 2015) within a preparation program. This construct will not be addressed using the Seven Constructs survey and is required to address all constructs on a principalship.

### **Operational Definitions**

- Principal Preparation Program (PPP) - the primary means for providing beginning principals with the tools needed to lead a school effectively (Grissom et al., 2019)
- National Educational Leadership Preparation (NELP) Standards - standards that focus on the most important areas of knowledge and expertise for new building-level educational leaders (NPBEA, 2018)

### **Summary**

This chapter introduced the problem of variances in principal preparation programs. Given both the direct and indirect influence principals have on schools (Sebastian & Allensworth, 2012), it is important to consistently prepare these individuals to be effective leaders. The changes to the principalship (Murphy, 2005), specifically the roles and responsibilities of principals (Slater et al., 2018), along with changing cultural and social dynamics (Beard, 2018; Braun et al., 2013; Johnson & Young, 2019; Orphanos & Orr, 2014) must reflect a change in how aspiring principals are trained to meet these fluctuating demands. Analyzing the PPPs in which acting principals were certified may help to identify which areas need to be better addressed in these programs (Fuller & Hollingworth, 2017). Through an examination of principal preparation programs, this study hopes to decrease the variance of training in PPPs in favor of increased standardization.

This chapter briefly explained the methodology (O'Dwyer & Bernaur, 2013) for researching the perspectives of principals and their perspectives on how adequately their PPP prepared them for the principalship. Individual constructs can be evaluated using quantitative approaches to determine how a principal's current assigned school's setting and size affect the principal's sense of adequacy in preparation. Though this study will only focus on Texas principals, the study can be used to analyze and compare PPPs in other states. This is possible since the underlying constructs of national standards carry across individual state standards (NBPEA, 2018).

Chapter two will provide a review of existing literature on PPPs across the nation. Additionally, the conceptual framework will be expanded upon with in-depth discussion. A deeper explanation and synthesis of the constructs to be studied will be explored. Chapter three will provide additional detail related to the methodology of the study. Beginning with an

explanation of the research methodology, the research design and sample will be explained. The instrumentation, along with its validity, and reliability will also be discussed. Finally, description of data collection and analysis will conclude this chapter.

## CHAPTER II

### REVIEW OF THE LITERATURE

This chapter will examine the existing literature regarding principal preparation programs (PPPs) in the United States. PPPs are required in the state of Texas for educational leaders who wish to become principals. These programs have evolved from their inception to the present day to meet principals' demands and job requirements (NPBEA, 2018). A problem lies with variances in these programs between universities and states. Per the United States Constitution, each state is responsible for maintaining and administering a public school system (Alexander & Alexander, 2019). An analysis of these programs provides insights into both consistent and inconsistent practices across states. Studies exist on PPPs (Grissom et al., 2019; Johnson & James, 2018; Sanchez et al., 2019; Shaked et al., 2018), but only some have taken a quantitative approach. This study focuses on PPPs to analyze the training of aspiring principals.

Presented first is the conceptual framework of the study, the National Educational Leadership (NELP) standards. The current NELP standards and the history of national preparation standards will comprise this section. The section concludes with a summative explanation of the connection between the construct of this conceptual framework and the research question being studied. The literature review will analyze the NELP standards and their constructs. Each construct's meaning and supporting research is presented. These constructs serve as the conceptual framework that will be used to analyze principals' perceptions of the adequacy of training acquired through a principal preparation program.

Literature was gathered using online databases, which included EBSCO and ERIC. Keywords used in the search were “principals,” “principal preparation program,” “national leadership standards,” and “educational leader preparation.” Keywords for the conceptual

framework were “program standards,” “principal development standards,” and “national leadership standards.” Filters were used to ensure that most sources were peer-reviewed journal articles published within the previous ten years.

### **Conceptual Framework**

Conceptual frameworks are utilized in research to structure the theories and concepts of a study. Drawing from previous research, conceptual frameworks help analyze and interpret data gathered from a study. The framework used in this study originates from an established entity in the education field and aided in understanding how to investigate, plan, and execute the study (Kivunja, 2018). The National Educational Leadership Preparation (NELP) standards served as the conceptual framework for this study.

The NELP standards served as the construct of national benchmarks which encompass the knowledge and application skills principals should have as a result of PPPs. It is important to note that the NELP standards are a conceptual framework for effective school leadership, not a traditional theory. For the purpose of this study, however, it served as a framework to allow for the content of PPPs to be evaluated as based on principals’ perceptions of how this content was addressed by their preparation program.

### **National Educational Leadership Preparation (NELP) Standards**

The National Educational Leadership Preparation (NELP) standards serve as a conceptual framework for effective school leadership because these standards are used in the accreditation of university preparation programs. Standards for educational leadership have developed over time, and the NELP standards serve as the currently accepted national standards. Beginning in the 1990s, a need emerged for a rigorous professional knowledge base of the principalship (Donmoyer et al., 1995). At the same time, the National Policy Board of Educational



Administration favored the idea of national standards to guide educational leaders (Young et al., 2017). Led by the Council of Chief State School Officers and the National Policy Board of Educational Administration (NPBEA), the Interstate School Leaders Licensure Consortium developed the first set of standards for educational leadership (Council of Chief State School Officers, 1996). These standards, known as the Professional Standards for Educational Leadership (PSEL) standards, were used, adopted, and/or adapted by 46 states by the year 2005 (Canole & Young, 2013; Young, 2020). Soon after, the Educational Leadership Constituent Council (ELCC) developed its own leadership preparation standards, focusing on educational leaders' areas of knowledge and ability. The ELCC standards, later renamed NELP, led to more consistent preparation program curricula in the United States (Canole & Young, 2013).

The NELP standards, while aligned with PSEL, serve a different purpose, particularly to provide more specific outcomes related to the performance expectations of educational leaders. While the PSEL standards focus on educational leadership practice generally; in contrast, the NELP standards focus on program graduates' specific knowledge, and ability to apply that knowledge, upon completing a high-quality educational leadership preparation program (NPBEA, 2018). The NELP standards, explicitly developed with a focus on the superintendency and principalship, are used by the Council for the Accreditation of Educator Preparation (CAEP) to review educational leadership programs (CAEP, 2017; Young et al., 2017). One set of NELP standards exists for candidates preparing to become principals and a different set is used for candidates seeking to become superintendents. This research focused on the building-level standards for principals, which are:

1. Mission, Vision, and Improvement
2. Ethics and Professional Norms

3. Equity, Inclusiveness, and Cultural Responsiveness
4. Learning and Instruction
5. Community and External Leadership
6. Operations and Management
7. Building Professional Capacity
8. Internship

### ***Standard 1: Mission, Vision, and Improvement***

Based on transformational leadership and its essential features, this standard emphasizes a leader's ability to advocate, lead, and carry out a mission, vision, and plan for continual improvement and school effectiveness (Murphy & Torre, 2014; Thoonen et al., 2011; Valentine & Prater, 2011). Upon completing a principal preparation program, candidates should both understand and demonstrate advocacy for their staff and students' current and future success. Candidates demonstrate this standard through an application of their knowledge and skills, collaboratively designing, leading, and implementing a school mission and vision, and leading the processes for continuous improvement. Standard one is divided into two components: Component 1.1 focuses on the mission and vision of a school, which reflects the core values and priorities of a school based on areas related to community, data, diversity, equity, and technology. Component 1.2 concentrates on the improvement process that is both understood and implemented using design, data, application, and evaluation.

### ***Standard 2: Ethics and Professional Norms***

This standard is supported by research, which describes the demand for school leaders to use ethical norms and values to guide their leadership behaviors and decision-making processes to protect the well-being of both staff and students (Frick, 2011; Frick et al., 2013; Kearney et

al., 2013; Theoharis & Haddix, 2011). Divided into three components, Component 2.1 states that a candidate is able to cultivate, communicate, and model professional norms of collaboration, fairness, integrity, reflection, self-awareness, perseverance, trust, and transparency. Component 2.2 focuses on the ability of the leader to evaluate, advocate for, and accurately communicate ethical and legal decisions. Component 2.3 describes that a candidate should both model ethical behavior, and also cultivate ethical behaviors in others.

### ***Standard 3: Equity, Inclusiveness, and Cultural Responsiveness***

Standard three consists of three components that focus on the commitments, knowledge, and skills school leaders require to develop and maintain an inclusive and equitable school culture. For such a school culture to exist, research argues the need for equitable guidelines and procedures, resulting in fair decisions by school leaders (Scanlan & Lopez, 2012; Theoharis & O'Toole, 2011). Component 3.1 addresses the use of data to advocate, cultivate, design, and evaluate an inclusive and supportive school culture. Component 3.2 focuses on the need to advocate, acquire, and evaluate equitable access to educational resources, opportunities, and technologies to support all students' well-being and learning needs. Component 3.3 describes the evaluation, cultivation, and advocacy for equitable, inclusive, and culturally-responsive instructional and behavioral support among staff members.

### ***Standard 4: Learning and Instruction***

Standard four consists of four components that address the school leader's commitments, knowledge, and skills to identify, develop, implement, and evaluate a logical system of curricula, assessments, data systems, instruction, and support resources. School leaders develop these structures to support teaching and learning (Sebastian & Allensworth, 2012). Component 4.1 describes the need for principals to develop, implement, and evaluate high-quality, technology-

rich curricula and additional aids for all students. Component 4.2 anticipates individuals who complete a PPP can develop, implement, and evaluate high-quality, equitable instructional practices, resources, technologies, and services that support digital literacy, equity, and both academic and non-academic systems. Component 4.3 depicts the school leaders' ability to develop, implement, and evaluate both formal and informal accessible, culturally-responsive assessments. Based on these evaluations, data-informed decisions are required to improve the instruction, learning, and well-being of students. Component 4.4 specifies the need for collaboration to develop, implement, and evaluate the school's assessments, curricula, data systems, instruction, and technology in an equitable, coherent, and systematic manner.

#### ***Standard 5: Community and External Leadership***

Made up of three components, standard five describes a principal's knowledge and skills regarding engaging the community, families, and school personnel to advocate for the needs of the community and the school, strengthen student learning, and support school improvement. Research supports the need for schools to put structures in place that nurture these relationships to improve student success (Ishimaru, 2013; Khalifa, 2012; Kirby & DiPaola, 2011). Standard five includes three components: Component 5.1 focuses on a school leader's ability to understand and demonstrate how to collaboratively engage diverse families to strengthen student learning, both within and outside the school. Component 5.2 depicts collaborative engagement and the cultivation of relationships with diverse community stakeholders and others for the benefit of both school and student development. Component 5.3 describes the need to communicate through digital, oral, and written means in the larger context when advocating for the needs of the school and community.

#### ***Standard 6: Operations and Management***

The three components of Standard six focus on developing the commitments, knowledge, and skills a principal requires to enhance communication, data usage, equity, management, operation systems, school-level governance, and technology within a school. Research on organizational management has found leadership in this area essential to operating an effective school (Grissom & Loeb, 2011; Louis et al., 2010). Component 6.1 states that a program completer should be able to develop, implement, and evaluate communication, management, operation systems, school-level governance, and technology that support all students' learning needs and promote the school's mission and vision. Component 6.2 describes the need for principals to make data-informed decisions related to equitable resource planning, which supports both school and student improvement. Component 6.3 discusses reflectively evaluating, communicating, and implementing regulations, laws, policies, and rights to promote staff and student well-being and success.

#### ***Standard 7: Building Professional Capacity***

Standard seven focuses on developing the commitments, knowledge, and skills a principal requires to engage staff in building a school's professional capacity, developing a shared professional culture, and improving the systems of staff evaluation, supervision, support, and professional learning. Extensive research has been done on the impact professional capacity has on the support of student learning (Bruggencate et al., 2012; Cohen-Vogel, 2011; Engel, 2013; Fuller et al., 2011; Goddard et al., 2015; Heck & Hallinger, 2014; Ingle et al., 2011; Price, 2012; Thoonen et al., 2011; Walker & Slear, 2011). Component 7.1 focuses on the need to develop the school's professional capacity through collaboration and engagement in recruiting, selecting, and hiring school personnel. Component 7.2 discusses the professional culture that promotes teacher retention and school improvement. Component 7.3 describes the ability

principals have to personally and collaboratively engage school personnel in distributive leadership practices, digital literacy, professional learning, cultural responsiveness, and student success. Lastly, component 7.4 highlights the need for supervision, support, and evaluation systems that promote student and school success.

### ***Standard 8: Internship***

The internship, under the supervision of a knowledgeable, expert practitioner, engages candidates in various school settings. The internship should provide an authentic, coherent, and continuous opportunity to apply and synthesize the knowledge and skills in the previous seven NELP standards. Longer, full-time internships allow principals to demonstrate leadership practices and increase satisfaction with their PPP (Orr & Orphanos, 2011; Reyes-Guerra & Barnett, 2017). Component 8.1 discusses the various reasonable and, authentic field or clinical internship experiences candidates should be provided. This component moves beyond the walls of the school, stating that candidates should be given the opportunity to interact with stakeholders in the community as well. Component 8.2 sets the minimum as a six-month concentrated internship, which should consist of 10-15 hours per week. Component 8.3 focuses on the mentor, who should demonstrate effective leadership skills, serve as the school's representative, and receive training from the supervising institution.

**Application of the NELP Standards.** The eight National Educational Leadership Preparation (NELP) standards were used for this study. Constructs that compose past national and current state standards have the same underlying, research-supported constructs found in NELP (Martin et al., 2016; NBPEA, 2018; New York State Education Department, 2018). The eight standards that served as the research constructs are: Mission, Vision, and Improvement; Ethics and Professional Norms; Equity, Inclusiveness, and Cultural Responsiveness; Learning

and Instruction; Community and External Leadership; Operations and Management; Building Professional Capacity; and Internship. Universities across the nation utilize these standards to construct their principal preparation programs. The NELP building-level standards are used for accreditation review, state program approval, and guide program design, with a focus on instructional leadership (NPBEA, 2018). These standards were studied in the analysis of principals' perception of their PPP and its adequacy in training them in each of the standard areas.

**Connecting the NELP Framework to the Research Question.** The National Educational Leadership Preparation (NELP) standards addressed the focus of the study in their comprehensive description of the skills a beginning principal should possess following their preparation program (NBPEA, 2018). Thus, these standards provided a well-rounded foundation to examine the adequacy of principal preparation programs. The eight NELP standards served as the construct for evaluating PPPs. Focusing on these standards allowed principals to describe how adequately their PPP prepared them in each of the eight standards. This study goes beyond the simple acquisition of knowledge by PPP graduates, determining how well principals are able to apply the knowledge gained from their PPP to the principalship.

### **Literature Review**

The eight National Educational Leadership Preparation (NELP) standards were used for this study. The eight standards from NELP (NPBEA, 2018) are Mission, Vision, and Improvement; Ethics and Professional Norms; Equity, Inclusiveness, and Cultural Responsiveness; Learning and Instruction; Community and External Leadership; Operations and Management; Building Professional Capacity; and Internship. Current literature regarding each of these constructs will be reviewed. Though most of the literature will be in the field of

education, these constructs expand beyond education into other fields, as will be evident in the review.

### **Mission, Vision, and Improvement**

Mission and vision are distinguishable based on their focus and purpose. The mission statement focuses on the journey, while the vision statement anticipates the desired destination. In other words, the vision is the goal, while the mission is the roadmap for achieving that goal. Despite the differences in these statements, both reflect a school or organization's priorities (Stemler et al., 2011). The "Mission, Vision, and Improvement" standard is based on transformational leadership, particularly in terms of a leader's capacity to carry out a mission, vision, and ultimately, improvement(s) for a school. Transformational leadership is not exclusive to the education field, it is the presiding approach in leadership literature (Antonakis, 2012; Dinh et al., 2014). A study conducted on 360 employees and their direct supervisors found that transformational leadership positively corresponded to workers' job satisfaction (Braun et al., 2013). Another study on the impacts of transformational leadership in education discovered a link between it and teacher exhaustion that was negatively predictive (Tsang et al., 2022).

Business research looked into the significance of creating and implementing purpose through an organization's vision (Amir Bolboli & Reiche, 2013; Kopaneva, 2019; Orhan, 2014), finding positively influenced job satisfaction of those individuals who were familiar with the mission and vision of their organization (Dobrinić & Fabac, 2021; Griffin et al., 2010). A study conducted on private sector organizations across Asia examined the tools and strategies implemented to achieve business excellence, finding an association between mission and vision statements and the level of business excellence in the organization (Tickle et al., 2016). It is important to note that simply having a vision or mission statement is not enough; the active



implementation of these statements and the involvement of the organization are required to achieve positive results.

### **Ethics and Professional Norms**

Leadership positions in nearly every professional field have established ethics and professional norms. These ethical and professional norms have been shown to affect a leader's decision-making in the fields of medicine (Cheit, 2014; Huddle, 2016; Laliberté & Hudon, 2013), business (Arnold, 2021; Mansouri & Rowney, 2014; Steyl, 2020), and law (Anleu et al., 2020; Kovarsky, 2016). Ethics and professional norms have also been extensively studied in the education field (Mayger & Provinzano, 2022a; Mayger & Provinzano, 2022b; Salomonsen & Andersen, 2014; Torlak et al., 2022).

These norms not only dictate the actions of educational leaders, but are an expectation from stakeholders. K12 stakeholders expect ethics and professional norms to be upheld by school leaders. Mayger and Provinzano (2022a) polled directors and community school specialists in the K12 arena to create a list of necessary qualities of a successful principal in order to lead the school, and the extent of preparedness of principals to lead. The traits discovered align with PSEL, the foundation of NELP standards 'ethics and professional norms for principals. Also of note, practitioners noted a disconnect between conduct and beliefs, as well as a lack of cogent preparation to apply what they had learned. NPBEA (2018) states educational leaders should be able to apply their knowledge and skills to advocate for ethical decisions for the well-being of each student and staff member and cultivate and emulate professional norms. Texas Administrative Code has enforceable standards on the professional ethical conduct of principals towards professional colleagues and students (19 Tex. Admin. Code §247.2, 2018). There is a

need for principals to be educated related to the ethics and professional norms of the career in order to have an ethical foundation on which to base their decision-making.

### **Equity, Inclusiveness, and Cultural Responsiveness**

Public school enrollment has grown since 1995, though student demographics have not grown equally. One major change in public school enrollment has been the enrollment growth of Hispanic students from 6 million in 1995 to 13.6 million in 2017, and this growth is expected to reach 14 million by 2029. The percentages of Black students, Asian/Pacific Islander students, and students who were two or more races also increased in this time period. White students, who have traditionally made up over half of the public school student population, fell below 50% in 2014 and are expected to continue to decrease (Wang & Dinkes, 2020). The demographic shifts require principals to understand and apply equity standards, be inclusive, and be culturally responsive to all students and staff members if they are to serve in their role effectively. The National Association for the Education of Young Children (Derman-Sparks & Edwards, 2010), the Council for Exceptional Children (Cook et al., 2014), the Council for the Accreditation of Educator Preparation (2017), and the Interstate New Teacher Assessment and Support Consortium Standards (2005) are just a few examples of organizations with education standards that place a strong emphasis on educators' effective service to diverse student populations.

### ***Equity***

In education, the terms equity and equality are often used interchangeably, though they have a clear distinction. Equality in education ensures the provision of the same resources, tools, and opportunities for all regardless of specific needs. Equity provides students with resources to fit their unique needs (Cramer et al., 2018). Equality means everything is equal, while equity focuses on fairness. The issue of equity came to the forefront of education with the *Brown v.*

*Board of Education* separate but equal ruling and continues to impact education nearly 70 years later (Walsh et al., 2014). Research conducted by Scanlan and López (2012) used an organizing framework to review 79 empirical articles to provide guidance for school leaders in their promotion of educational equity for bilingual students. Their research found linguistic acquisition and affirmation, providing equal access to curriculum, and access to additional resources to be an effective way for leaders to increase equity to their bilingual student population.

Beyond the education field, equity standards can be found in the fields of business (Gloor et al., 2020; Lee et al., 2020; Tate & Yang, 2015), medicine (Corbie et al., 2022; Tse et al., 2022) and economics (Alvarez & Alvarez, 2018; Betancourt et al., 2017). A leader must be educated on their own biases and how those biases affect their decision-making and leadership style (Gloor et al., 2020; Corbie et al., 2022). These studies also reveal the importance of training future leaders to be equitable (Alvarez & Alvarez, 2018; Corbie et al., 2022). A lack of equitable leadership leads to staff impacts of low self-efficacy, low evaluation results and work performance summaries, and overall feelings of negativity about their work environment (Corbie et al., 2022; Gloor et al., 2020; Tate & Yang, 2015). The natural ability of a leader to be equitable cannot be assumed, but instead, should be explicitly taught in leader preparation programs.

### ***Inclusiveness***

The Division for Early Childhood and the National Association for the Education of Young Children (2009) defines inclusion as the values, policies, and practices that support a child's learning, regardless of their ability, how to participate in a range of activities and context as a full member of the community. A shift has occurred away from viewing inclusiveness as only a physical placement and toward effective instructional practices in a meaningful

environment (Love & Horn, 2021). Inclusive education was offered as an alternative approach to special education. This alternative would increase students' participation and decrease exclusion from the school culture, community, and instruction of mainstream classrooms (Booth & Ainscow, 2002). However, a precise, practical application of inclusive education has yet to be agreed upon (Göransson & Nilholm, 2014). Inclusive education continues to face opposition related to how it should be enacted and evaluated (Forlin & Loreman, 2014).

### ***Cultural Responsiveness***

The multifaceted construct of cultural responsiveness involves the ability to understand cultural differences, recognize potential biases, and look beyond differences to best serve the student, families, and community of a school. The skills one requires to be culturally responsive include intercultural knowledge, intercultural attitude, intercultural skill, and intercultural awareness (Gay, 2015). McGovern et al. (2020) conducted a study on the culturally-responsive leadership practices required to promote the positive development of youth participating in rural programs serving Latinx youth. This study serves as a way to inform the future development of cultural responsiveness through the leaders' ability to cultivate a safe space that: affirms youth's cultural values and bilingualism; connects youth with a trusted ally through shared experiences; promotes cultural awareness and appreciation; and supports youth's leadership development and advocates for them through community events which promote cultural awareness. The important role of the leader in establishing cultural responsiveness in an organization was supported by Scribner et al. (2021), which found the principal's understanding, and the implementation of that understanding, was significant to the student's experience and how well their needs were met.

### **Learning and Instruction**

Classroom instruction is the number one school-related element that influences students' learning (Sebastian & Allensworth, 2012). Specifically, the quality of instruction impacts students' learning, as evident in studies beyond the PK-12 setting, such as in the medical field (Tsai & Jao, 2020) and science, technology, engineering, and math (STEM) fields (Love et al., 2014). Sebastian and Allensworth (2012) surveyed high school teachers in Chicago public schools to study the relationships between classroom instruction, student performance, testing achievement scores, organizational structures, and the leadership of the principal. Their findings determined that effective principal leadership was vital to both improve schools and increase student achievement. Another study conducted by Cunningham and Lochmiller (2020) examined principals' leadership style, concentrating on the relationship between leadership decisions and teacher instructional strategies. The leadership style of administrators should create a learning environment that supports effective teaching and fair treatment of all students. Their findings confirmed earlier research recommendations related to the significance of developing leaders who engage in activities unique to their fields of expertise, as well as the link between distributive leadership and effective instructional leadership.

### **Community and External Leadership**

Community leadership is not a leadership style specific to education, but has also been studied in economics (Castle et al., 2017; Kohler et al., 2022; Xu et al., 2017) and medicine (Carapetis & Brown, 2020; Chawaga et al., 2015; Lyons & Pillay, 2017). Community leadership focuses on developing every person's capacity to be a leader, as well as establishing relationships with the community and external stakeholders of an organization. In the education setting, the principal is required to exhibit community and external leadership to support student success. Kirby & DiPaola (2011) conducted a study in Virginia on 35 urban elementary schools, finding

several leadership actions as predictors influencing student achievement. These leadership actions included: community involvement, collective efficacy, trust, and high academic standards. With the passage of the Every Student Succeeds Act in 2015, adjustments to the assessment system for principal performance were examined by Mayger and Provinzano (2022b), with an emphasis on the family and community engagement (FCE) component that is used to evaluate principal performance. Though a lack of substantive results were found, the study illustrates the potential for future research as it relates to the need to plan for and implement an approach to evaluate principals' community leadership. In part, educational leadership has been shown to add to student learning through close work with communities and families to provide supportive spaces for students (National Policy Board for Educational Administration, 2015). Educational outcomes improved when school leadership roles were taken on by community stakeholders and family members (Bertrand et al., 2018). The existing research illustrates the importance of principals' ability to work both in and with their community. Principals cannot remain within the four walls of the schoolhouse; students will not be as successful as they could be without principals committed to community and external leadership. Preparation programs should teach community and external leadership to program participants in order to prepare them for this aspect of the principalship.

### **Operations and Management**

Operations management is researched more in the fields of engineering (Hitt et al., 2016; Thomé et al., 2016) and business and economics (Bromiley & Rau, 2016; Lee & Tang, 2018; Matthias et al., 2017). The necessity for, and difficulties of, leadership and operations management was demonstrated by medical research studying the conversion of an intensive care unit to a Level 1 trauma center (Savel et al., 2018). This study found the need for buy-in from

every individual, a shift in leadership style and collaboration, and careful strategic planning from the leaders in order to effectively run the medical center.

Operations and management encompass all non-instructional functions of a school, but is a vital job responsibility for principals (Grissom & Loeb, 2011). The ability of a principal to operate and manage non-instructional functions indirectly determines the effectiveness of the curriculum, instructional time, learning facilities, and students' learning process (de Souza Lessa et al., 2018; Salmagundi, 2015). Principals, as school managers, according to Sheng et al. (2017), should have the following basic skills: planning, mobilizing, organizing, and controlling school management. Supporting research states that middle-management principals have been replaced with the expectation that the new principal is more effective in stirring radical change to improve school operations (Sheng et al., 2017). The need for principals to have the knowledge and abilities necessary to manage non-instructional tasks is essential for successful operations management. Though every state, school district, and individual campus will have different approaches to operations and management, preparation programs must address this topic in order to appropriately prepare aspiring principals to succeed in their future positions.

### **Building Professional Capacity**

Leaders are tasked to develop professional capacity, or human capital, within their organization. The importance of human capital is evident in the field of business (Bol et al., 2018; Frederiksen & Kato, 2018), organization management (Eckardt et al., 2021; Wolfson & Mathieu, 2021), and education (Goddard et al., 2015; Heck & Hallinger, 2014). The impact of human capital on the possibility of young women company owners becoming entrepreneurial leaders was examined in a research study by McGowan et al. (2015). This study found insufficient resources in human capital, which limited the chances of these young women

becoming entrepreneurial leaders, discussing the need for support from family, friends, and mentorship to grow human capital. The consequences of insufficiencies in building professional capacity were echoed by Tondeur et al. (2017). Their research focused on integrating technology based on teachers' pedagogical beliefs. A meta-aggregative approach of 14 studies found barriers such as support, professional development, and a lack of training to be reasons for the lack of technology integration in the classroom. This study concludes with the need for practitioners and school leaders to develop and implement technology training for teachers.

Principals must know how to coach, offer feedback, and provide professional development to their employees to increase professional competence in the educational context. Research was undertaken on a professional development school by Hall and Freeman (2014). Using shadowing as a method of data gathering, leadership and support for capacity building were better understood and benefitted both the leader and the staff members. This study highlights one small way principals can build professional capacity in their schools. This is not easily done, as leadership can quickly develop into a lead-follow model with little collaboration between parties. Preparation programs should teach soft skills such as communication, problem-solving, and creativity to foster a principal's ability to build capacity within their staff members.

### **Internship**

The terms internship, practicum, and field placement are used interchangeably in the research and are defined as a supervised clinical experience offered as part of a course of study for the purpose of on-site, in-person, professional training (American Psychological Association, 2015). An internship's hands-on work experience allows the participant to explore the career and develop their skills before transitioning to the job. Internships are used in many career fields, specifically with undergraduate and graduate students who need to gain work or research



experience (Galloway et al., 2014; Svenson, 2016). Galloway et al. (2014) conducted a study on the internship role for Instructional Technology (IT) students, exploring current and newly created internship programs. Interns reported gaining increased skills and job awareness through the internship programs. Internships prepare individuals in a way that a traditional classroom setting cannot; they provide field experience that require individuals to apply what they have learned formally and incorporate that application with additional on-the-job learning.

Focusing specifically on what students learn from a practicum/internship, Simons et al. (2012) conducted a mixed-methods approach on 38 undergraduate students enrolled in a practicum/internship program. Using pre-and post-test surveys, the research concluded that students improved their multicultural skills, and stakeholders of students, supervisors, and faculty all reported benefitting from the practicum/internship. Additional research is still required to analyze the appropriate length of time for the practicum, with this study analyzing 100-hour and 200-hour practicum/internship programs. Even with the need for this specific research, the benefits of the practicum for both the participant and the school are evident and numerous. The practicum is student-centered, allowing students to apply their knowledge to the natural environment, increase their interest(s), increase their self-efficacy and confidence, and provide professional development (Boys et al., 2022).

## **Summary**

Each piece of the conceptual framework has a focus. Though not a theory, the National Educational Leadership Preparation (NELP) standards are based on theory, research, and stakeholder input (Brooks et al., 2010; Mullen & Huting, 2008; Williams et al., 2008). These standards are used for national accreditation (NPBEA, 2018), making it an excellent fit to use for this research project. Individually, each component assists in the analysis of a small part of

principal preparation programs. Together, they help to provide a whole picture of programs, addressing everything from a school's physical structure to student needs. These standards form the lens to achieve an in-depth analysis of the adequacy of principal preparation programs.

### **Summary**

The principals' feelings regarding how adequately their programs trained them is one aspect that can be researched to study the variance and adequacy of principal preparation programs. The alignment of preparation programs in Texas will be studied against the perceptions of principals who have graduated from these programs. Their perceptions will reveal how well they felt their program prepared them for the position of principal. The constructs that will be analyzed are a program's ability to provide the knowledge and skills related to the areas of: mission, vision, and improvement; ethics and professional norms; equity, inclusiveness, and cultural responsiveness; learning and instruction; community and external leadership; operations and management; building professional capacity; and internship/practicum. Each of these constructs have been heavily researched in the education field (Engel, 2013; Frick et al., 2013; Goddard et al., 2015; Heck & Hallinger, 2014; Ishimaru, 2013; Kearney et al., 2013; Murphy & Torre, 2014; Reyes-Guerra & Barnett, 2017), illustrating the importance of their integration into a preparation program for aspiring principals.

Current research reveals a gap in the alignment of programs to national standards. While research has been done to redesign these programs based on input from stakeholders (Johnson & James, 2018; Sanchez et al., 2019), little has been done to show the potential benefits of these redesigns. Given this gap in studying principal outcomes, it is unclear if current programs are adequately preparing aspiring principals. Using the constructs found in the NELP standards will inform the research questions by analyzing the perceptions of principals in regard to how well

they felt their program trained them in these standards. Examining these constructs may highlight a gap in alignment or a need to focus more effort to the redesign of a particular area in preparation programs. The results of this study can serve to influence future redesigns of programs with the intent of increasing the preparation of aspiring principals to better suit their future careers.

The following chapter will provide details regarding the methodological approach of the study. An explanation of the research methodology will be discussed, along with the research design. A rationale for each component of the research design will be given. A description of the population and details for collecting a sample from the population will be discussed. The instruments that will be used, along with their validity and reliability will follow. Chapter three will conclude with an explanation of how the data was collected and analyzed.

## CHAPTER III

### METHODOLOGY

This chapter will focus on the methodology of the study. The preparation programs of principals are the foundation for individuals to develop the knowledge and skills to be effective school leaders (Mendels, 2016). The purpose of this quantitative, non-experimental, retrospective, descriptive study (O'Dwyer & Bernauer, 2013) was to examine principals' perceptions of the preparation achieved through their completed principal preparation programs (PPPs) based on the type of program completed, years of experience as a principal, and the Education Service Center region they serve in. This study analyzed the preparation and training of principals who are currently in the field and serve in the state of Texas.

The National Educational Leadership Preparation (NELP) standards were used as the conceptual framework since these standards include the major domains of educational leadership, referred to as the core of education by Murphy (2005). The NELP standards vary from past national standards in that they reflect the current changes in education, such as varying school populations, educational policies, and expectations (Young et al., 2017). Since the NELP standards are used by the Council for the Accreditation of Educator Preparation (CAEP), these standards must be anchored to empirical research (Council for the Accreditation of Educator Preparation, 2016). Young et al. (2017) found significant support in the research base for the NELP standards. Their findings highlighted how programs that were aligned to NELP better prepared aspiring principals for the principalship.

By analyzing principals' perceptions of how adequately prepared they were through their PPP, any gaps in knowledge and skills can be identified and, ideally, actively addressed by program designers to better equip individuals for the principalship. This study sought to analyze

principals' feelings of preparedness based on the school type in which they currently serve. This chapter will also discuss the chosen methodology and provide a rationale for that method. Additionally, an explanation of the research design and a design rationale will be provided. A description of the population and the method for selecting a sample will be described. The survey instruments that will be utilized in this study will be discussed and explained. In addition, explanations regarding validity and reliability statistics will be provided for the study. This chapter will conclude with the ethical considerations and limitations of the study.

### **Research Questions**

The NELP standards were designed to reflect the current understanding of the preparation of leaders to promote the well-being and success of each student and staff member in a school. While delivering these standards is left up to individual preparation programs, the need to use NELP standards in developing and delivering these programs is supported by empirical research. By examining PPPs in the state of Texas using a quantitative approach, this research study hoped to answer the following research questions:

Research Question 1: Is there a difference in principals' perceived adequacy of training based on the type of program completed?

Research Question 2: Is there a difference in principals' perceived adequacy of training based on how many years they have served as a principal?

Research Question 3: Is there a difference in principals' perceived adequacy of training based on the Education Service Center region in which they currently serve?

To answer these questions, a survey was administered. Surveys allow individuals who have completed a PPP to provide their perspectives and feelings related to the adequacy of training provided by their program. Boyland et al. 's (2022) survey was utilized in this study. In

addition, Dodson's (2015) Principal Preparation Field Experiences Survey was utilized to address the construct of the internship. Boyland et al. 's (2022) survey covers the constructs covered in the first seven standards of NELP, yet does not address a PPPs internship/field experience. Dodson's (2015) survey addresses the field experience of a PPP. Also, demographic questions were asked to provide a more robust understanding of the principal's perspective on their program. Table 1 explains the source of all variable data and the variables studied.

**Table 1**

*Research Question Variables*

Source	Variables
Seven Construct Survey and the Principal Preparation Field Experience Survey	Mission, Vision, and Improvement Ethics and Professional Norms Equity, Inclusiveness, and Cultural Responsiveness Community and External Leadership Operations and Management Building Professional Capacity Internship
Researcher-created survey items	Age Sex Years of experience as an educator (teacher, dean, instructional coach, etc.) Years of experience as an administrator (assistant principal/principal)

The highest level of education earned  
Type of school currently employed  
The instructional level of the school  
Geographic location of school  
Region of Texas currently serving as principal  
Percentage of Free and Reduced Meals  
(FARMS)  
Type of principal preparation program (PPP)  
completed  
Graduation year from PPP

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### **Research Methodology**

For this study, a quantitative approach was used. A quantitative approach is used in research that focuses on carefully measuring a set of variables to answer a theory-guided hypothesis and research question. Quantitative research has the goal of helping to make inferences about the relationships between variables, as well as allowing for generalizations to be made regarding the broader population, in this case, other principal preparation programs. A sample is chosen from the population and can be taken using random sampling, convenience sampling, purposive sampling, or snowball sampling, as discussed in O'Dwyer and Bernauer (2013). A quantitative approach also allows for the analysis of individual variables to determine how they affect the outcomes of these programs. Finally, this methodology allows for objectivity when studying PPPs (Creswell & Creswell, 2018).

There is a gap in the research literature in analyzing PPPs using a quantitative approach, with several studies having used a qualitative approach (Davis & Darling-Hammond, 2012; Johnson & James, 2018; Reyes-Guerra & Lochmiller, 2016; Vaughn & Olivares Ortiz, 2016). A few studies have been done on PPPs using a quantitative approach, such as Anderson and Reynolds' (2015) analysis of PPPs in nine states and Fuller and Hollingworth's (2016) analysis of placement rates of Texas' PPPs. By analyzing PPPs using a quantitative approach, this research adds to existing knowledge and aids in filling the gap identified by the literature. In the field of education leadership, quantitative methodology has been used to study the effect principals have on schools and students (Grissom et al., 2021), analyze principal attrition (Tekleselassie & Choi, 2021), and assess teachers who move into administrative positions (Stone-Johnson, 2014).

### **Research Design**

This quantitative research study used a non-experimental, retrospective, descriptive design (O'Dwyer & Bernauer, 2013). This research design helped answer the research questions since it allowed for the study of variables related to a principal preparation program and the demographic variables of the participants. A non-experimental study means the study examines naturally occurring phenomena, in this case, PPPs. The researcher cannot manipulate this variable, and this differs from experimental studies, which examine the effect of an intervention or treatment on a phenomenon. Non-experimental research designs are limited to descriptive and correlation-type observations. Nevertheless, they are appropriate to use when it is impossible or unethical to manipulate characteristics or when the event has occurred in the past (O'Dwyer & Bernauer, 2013).



This was a retrospective study since the data collected will be from previous experiences in PPPs. Retrospective studies allow for the exploration of past phenomena to better identify relationships in the studied variables (O'Dwyer & Bernauer, 2013). The study sought insight into how well individuals felt their PPP prepared them for the principalship. This study hoped to highlight a gap in the principal preparation pipeline in order for it to be addressed in program redesigns. This study was descriptive because it examined the characteristics of a preparation program. Descriptive studies allow for variables to be studied in isolation or to study how variables relate to one another (O'Dwyer & Bernauer, 2013). All studies require some descriptive elements, given the need to describe the characteristics of the participants and the data being studied.

### **Population and Sample Selection**

A population is all individuals or groups that possess the characteristic the researcher aims to investigate (O'Dwyer & Bernauer, 2013). For this study, the general population was all principals currently serving in Texas. The Texas Education Agency (TEA, 2023a) directory lists this population as 8,057 individuals. As of the 2021-2022 school year, demographic data on principals shows 67% of principals are female. As of the 2015-2016 school year, female principals have been more prevalent, with the percentage increasing from 62.73% in 2015-2016 to 67.11% as of the 2021-2022 school year. Race demographics show that a little more than half of principals are White (57.77%), and a quarter are Hispanic/Latino (25.44%). African American principals account for nearly 15% of the principal population. Asians and American Indians combine to make up 1% of the population, 0.70% and 0.30% respectively (Texas Education Agency, 2022a).

Over half (53.5%) of principals serve at the elementary level. This equates to 4,817 principals. Roughly 18% of principals work at a junior high/middle school level. TEA separates this to be 2.4%, or 217 principals serving at a junior high, and 16%, or 1,439 principals serving at a middle school. The percentage of principals serving at a high school is 19%. Other grade-level groups made up less than 2% of the population. A definition of “other grade group” could not be found through the Texas Education Agency nor through outside research. The remaining principals work at a (P)K-12 school (7.4%). The location of schools varied, with the largest percentages (27.9% and 23.3%) working in a large city area and a large suburb area, respectively. Principals serving in rural areas made up 21.7% of the population.

Ages range from 26 to 76 years old, with a mean of 46 years old. The majority of principals are between the ages of 40 and 55. Years of experience ranged from zero years to 53 years, though it is important to note that it was not specified if these are years of experience solely as a principal, or if it is a combined total of all years of education experience. A total of 343 principals reported having no experience. The average years of experience was 19 years. Nearly 84% or 7,537 principals held a master's degree. A little over 8% held a bachelor's degree. Principals with a doctorate totaled 642, or 7.1% of the population. Surprisingly, 75 principals did not hold a bachelor's degree or higher, though this made up less than 1% of the population.

Convenience sampling has been conducted in education to examine everything from the organizational climate of kindergarten principals (Wang et al., 2019) to teachers' perceptions of principals' motivating language (Ozeren et al., 2020).

Emails are a form of online recruitment. Online recruitment varies from traditional recruitment by using information technology to manage the recruitment processes (Abia & Brown, 2020). The email was sent to participants and included a cover letter detailing the

purpose of the survey, a consent form, and a link to the survey. The survey instrument was published online through Qualtrics. Those who choose to participate by clicking and filling out the survey link formed the sample for the study.

### **Instrumentation and Data Sources**

Two original instruments were used for the purpose of this study. Boyland et al.'s Seven NELP Standards Survey (2022) and Dodson's Principal Preparation Field Experience Survey (2015) were utilized to cover the eight NELP-related constructs. The two surveys were combined into one questionnaire and uploaded into Qualtrics, an encrypted, secure web-based platform. The survey began with a brief set of demographic questions, followed by the 60-question survey covering the first seven NELP-related constructs, and an additional fourteen questions covering the internship.

### **Demographic Questions**

The use of demographic questions ensured that respondents met the criteria for being included in the study and provided a better understanding of the characteristics of respondents. The demographic questionnaire included fourteen questions asking the respondent's: biological sex, age, highest level of education received, total years as an educator, years of experience as a principal, the instructional level of their current school, the school's classification, the education service region (as defined by TEA) of the current school, the school's geographic location, the percentage of students receiving free and reduced-cost meals, years of experience before entering a principal preparation program, the type of preparation program completed, if the program was completed in the state of Texas, and the year the program was completed. Types of preparation programs vary from alternative certifications done through a service center or programs tied to a university and offered at a graduate level. In addition, these programs can be completed entirely

online, in-person, or a mix of the two, known as a hybrid program. A list of these variables and response options can be found in Table 2.

**Table 2**

*Demographic Variables*

Variable	Response options
Biological Sex	Male
	Female
Age	21-24
	25-30
	31-35
	36-40
	41-45
	46-50
	51-55
	56-60
Highest level of education received	60+
	Bachelor's degree
	Master's degree
	Doctoral degree
Years of experience as an educator (including years as a principal)	0-4
	5-8
	9-12
	13-16

	17-20
	21-25
	26+
Years of experience as a principal (exclusive of years served as an assistant principal)	0-4
	5-8
	9-12
	13-16
	17-20
	21-25
	26+
The instructional level at the school currently employed	Elementary
	Middle/junior high
	High school
	(P)K-12
	Other
Type of school currently employed	Public
	Private
	Charter
	Magnet
Current school assignment location (Region as defined by TEA)	Region 1
	Region 2
	Region 3
	Region 4

	Region 5
	Region 6
	Region 7
	Region 8
	Region 9
	Region 10
	Region 11
	Region 12
	Region 13
	Region 14
	Region 15
	Region 16
	Region 17
	Region 18
	Region 19
	Region 20
Current assigned school's location	City
	Suburban
	Town
	Rural
Percentage of students receiving free and reduced-cost meals	0% - 10%
	11% - 20%
	21% - 30%

	31% - 40%
	41% - 50%
	51% - 60%
	61% - 70%
	71% - 80%
	81% - 90%
	91% - 100%
Years of experience before entering a principal preparation program	0-4
	5-8
	9-12
	13-16
	17-20
	21-25
	26+
Type of principal preparation program completed	In-person university program
	Hybrid university program
	Online university program
	Alternative certification program through a school district
	Alternative certification program through a regional education service center
Program completed in the state of Texas	Yes
	No

Graduation year from a principal preparation program	1965-1970
	1971-1975
	1976-1980
	1981-1985
	1986-1990
	1991-1995
	1996-2000
	2001-2005
	2006-2010
	2011-2015
	2016-2020
	2020-current

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### **Seven NELP Standards Survey**

Boyland et al. (2022) created a survey to focus on seven of the eight NELP standards. Their research found that all participants felt well-prepared overall for the principalship and would recommend their program to others. The vast majority felt prepared to lead their school in NELP Standards 1, 5, and 6, with only 4% feeling unprepared. All participants felt well-prepared by their program to lead successfully in NELP Standard 2. Nearly 6% of principals felt unprepared to lead in NELP Standards 3 and 7, with 7% feeling unprepared to lead in NELP Standard 4. No significant difference in preparedness was found between women and men. There was also a lack of consistency upward in preparedness based on total years as a principal. The time since completion of a program, school localities, and poverty level also yielded insignificant differences.



This instrument highlights which areas principals felt their program prepared them least and which areas they felt their program adequately addressed in their training (Boyland et al., 2022). The results of this study are promising since participants did not unanimously feel they were fully prepared for each of the seven constructs studied. In addition, the results show that knowledge and skills related to equity, inclusiveness, cultural responsiveness, and building professional capacity were the areas in which they were not adequately prepared to lead. Using this survey can determine if principals feel these areas were not adequately addressed in preparing them to lead or if they have this sentiment toward other constructs. This instrument can also determine if programs are adequately covering certain constructs based on the perspective of principals who have graduated from these programs.

The nine-item survey uses a four-point Likert-type scale (1=Strongly Disagree, 2=Disagree, 3=Agree, 4=Strongly Agree) to ask perception questions for NELP Standards 1-7. The survey item uses direct language from the NELP standards. For example, the survey item for Standard 1 read, “I was well prepared by my principal preparation program in my capacity to lead and successfully implement a school’s mission, vision, and school improvement plan.” The sentence stem (i.e., “I was well prepared by my principal preparation program in my capacity to...”) is the same for each item (Boyland et al., 2022).

The survey was modified for this study. First, a six-point Likert scale (1 = Strongly Disagree, 2 = Disagree, 3 = Somewhat Disagree, 4 = Somewhat Agree, 5 = Agree, 6 = Strongly Agree) was utilized instead of the original four-point scale. Simms et al. (2019) found more Likert response options resulted in higher internal consistency and test-retest reliability, with those benefits stopping after six response options. In addition, the individual statements were

broken up into each component, resulting in sixty items to cover each component found in the NELP standards as opposed to the original nine item survey.

### **Principal Preparation Field Experience Survey**

Dodson (2015) conducted a survey evaluating the field experiences of principals in the states of Kentucky, Massachusetts, Mississippi, Maine, Maryland, Nebraska, and South Dakota. Though the percentages of field experience as part of their PPP varied from state to state, overall, 73% completed field experience as part of their program. The participants who took part in field experience felt it helped prepare them to lead a school. Nearly 80% of participants who did not have field experience as part of their PPP felt it would have helped prepare them for the principalship. The types of field experiences varied, though the top three areas frequently listed as part of field experience were: identifying and observing an experienced school leader, observing a school leader discussing a new instructional program, and interviewing a school leader. Participants from all states except Mississippi stated that the most valuable part of their field experience included any tasks where they performed the principal's job, such as doing a data-driven analysis, teacher observations, and shadowing a school leader. A clear consensus for the type of pedagogy missing from field experiences was clear: the need for more hands-on training.

The results from this survey show promise for the current study. The survey results showed that most participants completed some form of field experience, though not all (Dodson, 2015). While Texas requires all principals to go through a preparatory program (Texas Education Agency, 2022b), it does not necessarily mean an internship or field experience is required of the program. This serves as one significant component for analysis in this study. In addition, the results from Dodson's (2015) research found that participants who did complete field experience

voiced a desire for more hands-on training. Using this survey shows if there is a similar concern for principals, or if they feel other aspects are missing from the programs they completed. Lastly, this survey helps identify the types of tasks most frequently completed during a principal's field experience. This aided in determining if tasks are more managerial or if they allow principal candidates to do tasks related to their instructional leadership of the campus. The questions asked in this survey helped to identify strengths, weaknesses, and missing areas of principal preparation programs that should be addressed in the internship phase.

To measure field experience, the instrument includes seven-items and uses a 4-point Likert scale (1=Strongly Disagree, 2=Disagree, 3=Agree, 4=Strongly Agree), in addition to yes/no survey items and demographic information about their current position and school setting, years of experience as a principal, highest education level, age, and instructional level of their school (Dodson, 2015). This survey covers a list of field experiences aligned to critical success factors recommended by the Southern Regional Education Board (SREB) to be included as part of all PPPs in the southern region of the nation, of which Texas is a part. As of 2022, SREB standards are being revised to align with NELP, but a current crosswalk between the two does not exist (WestEd, 2022). The field experiences included in Dodson's (2015) survey include: identify and observe an experienced school leader who will serve as a confidante and professional mentor; observe a sample of student transcripts to determine course-taking strategies and review student educational and career plans when available; participate in a school/business partnership and analyze its influence on student learning; participate in a curriculum review to identify changes needed in the school's curriculum; and lead an initiative for updating a school/parent handbook and website. These survey items were constructed to

serve as a checklist of the type of field experiences performed by the principal candidate during their internship.

The survey instrument was modified for the purposes of this research, in that open-ended responses were removed. These items were removed since this study is using quantitative methods only and open-ended responses are used in qualitative research. The survey items related to the administrator/mentor of the field experience were excluded as well since they do not pertain to the scope of the study. This study focuses on the tasks and roles taken during the field experience, not the partnership between the administrator/mentor. In addition, the included demographic questions were also removed, as these were included in the demographic section of the combined survey.

### **Validity**

The degree to which an instrument measures what it is designed to measure is referred to as its validity (Creswell, 2020; O'Dwyer & Bernauer, 2013). Both content and construct validity were established for the Seven Construct survey. Content validity refers to the items on an instrument representing universal behaviors that define the attribute being measured (O'Dwyer & Bernauer, 2013). Content validity was established through the use of experts in developing, reviewing, and revising the wording and flow of the instrument (Boyland et al., 2022). Construct validity focuses on whether an instrument provides meaningful information about the attributes being studied by the researcher (O'Dwyer & Bernauer, 2013). This was established by Boyland et al. (2022) by linking the survey items to the constructs found in the NELP standards.

Validity for the Principal Preparation Field Experiences Survey was established through construct validity. The content domain, in this case, field experiences, was taken from the Critical Success Factors (CSF) outlined by the SREB (Dodson, 2015). The CSF were established

after a systematic literature review and research analysis on 60 principal internships. The 13 CSR were found to be the best practices for structuring the internship of a PPP (Fry et al., 2005). The use of these factors, coupled with similar wording found in these factors, establishes construct validity.

### **Reliability**

Reliability is defined as the consistency of measurement of an instrument (O'Dwyer & Bernauer, 2013). Reliability can be determined through the use of multiple administrations of an instrument or a single administration. Reliability was established for the Seven Construct survey through internal consistency utilizing Cronbach's alpha. Internal consistency requires the instrument to only be administered once. Cronbach's alpha is measured on a scale from zero to one. A value of zero indicates the instrument is unreliable, and a value closer to one indicates higher reliability. A Cronbach's alpha that is .70 or higher is deemed optimal (O'Dwyer & Bernauer, 2013). Boyland et al. (2022) calculated Cronbach's alpha, finding it to be  $\alpha = .85$ , which is considered suitable for instrument reliability (Gliem & Gliem, 2003).

The reliability of Dodson's survey is not evident nor presented in the research (Dodson, 2015). However, this is the only instrument the researcher found that measures the quality of an internship that aligns well with NELP Standard 8. Existing research only covers whether or not an internship is required or a part of a principal preparation program. This lack of instrument availability is supported by extensive year-long surveys conducted by the Wallace Foundation (Darling-Hammond et al., 2022) and the National Association of Elementary School Principals (Fuller et al., 2018). The National Association of Elementary School Principals administered a 10-year survey in which principals' perspectives on the principalship and their preparation/training were analyzed (Fuller et al., 2018). Regarding asking for information about

an internship, the survey only asked if one was required as part of their graduation program. The Wallace Foundation conducted a systematic review of research from 2000 to 2021 analyzing the features of a preparation program. In their review of surveys, questions regarding internships were limited to whether or not one was required as part of their program (Darling-Hammond et al., 2022).

### **Data Collection Procedures**

Email addresses for the 8,057 principals were collected from TEA so surveys could be delivered electronically to the work email accounts of these individuals. These email addresses were entered into Qualtrics. The email message consisted of introductory information regarding the survey (purpose, audience, goal of the study) and an informed consent letter principals were able to maintain for their records. An email with the link to the survey was sent to participants, and the link directed them to the Qualtrics site containing the survey. The individual agreed to participate in the study by clicking on the link.

A two-week (ten business day) window was given for participants to complete the survey. A reminder email was sent on the fifth business day. The survey took approximately 15 minutes to complete. Once a 10% minimum response rate was not achieved after two weeks, the survey would remain open for another five business days. An additional email was sent to inform individuals that the survey link remained active to collect further responses. The surveys were anonymous and did not ask for identifying information such as participant' names. All survey responses were downloaded, removed from Qualtrics, and stored on a password-protected external drive. Data files created for the research study were accessible only to the researcher on a password-protected external drive. The external drive was locked in the researcher's home office filing cabinet. Once the data analysis is complete, the data will be kept indefinitely.

## **Data Analysis Procedures**

Data from Qualtrics was uploaded into SPSS v.29. Data was cleaned by reviewing the data once uploaded into SPSS to determine if any missing or incomplete data was evident. The steps to clean data, such as missing or incomplete data, were followed using Cronk's (2020) step-by-step manual. Descriptive statistics were run on the demographic information from participants (Cronk, 2020). This included calculating means, frequencies, and standard deviations for demographic data of the participant as well as their preparation program and current school of employment. These descriptors were used to evaluate the central tendency (i.e., mean, median, mode), dispersion (i.e., range, standard deviation), normal distribution, and outliers of the data. Before any data analysis began, it was important to understand any patterns that may exist in the data. Descriptive statistics allow this important process of evaluating the normality of the data so that assumptions can be made (Cronk, 2020). Each variable was examined for statistical normality.

To answer the research questions, One-Way ANOVAs were conducted. An inferential One-Way ANOVA was used to determine if differences in the means of two or more groups were meaningfully different. Individuals must only be a part of one group in this test, with one categorical independent variable with two or more levels and a continuous, quantifiable dependent variable on an interval scale. The F-distribution was employed to determine if the differences between two or more groups were significant. When the null hypothesis is true, the F-distribution describes the sampling distribution. While an F-value more or less than one shows differences between the group means in the population, an F-value near 1 suggests no variation between the group means (O'Dwyer & Bernauer, 2013).

A post-hoc analysis was run as well when the One-Way ANOVA results were shown to be significant. Several post-hoc comparisons can be used, the most widely used being Tukey's *HSD*. Based on the Homogeneity of Variances *p*-value, either the ANOVA or Welch table was used. If the ANOVA table was used, the Tukey table was used for the post-hoc analysis. If the Welch table was used, the Games-Howell table was utilized for post-hoc analysis. Regardless of the table used, the output gave every possible combination of levels of the independent variable being studied (Cronk, 2020).

### **Ethical Considerations**

The risks associated with this study were not expected to be any more than what is experienced in the typical daily lives of participants. Participation was voluntary, and participants were informed of the purpose of this study. Participants were free to exit the study at any time and for any reason. Data from the study was reported honestly and transparently. All data gathered and stored did not have individual identifiers. There was no risk of coercion or potential conflicts of interest since the researcher does not serve in an authoritative role over any of the participants in this study.

Qualtrics was used to maintain confidentiality and anonymity. The use of Qualtrics ensured that participant data was secure. Furthermore, no personal identifiers were collected as part of this study. Data was kept for the duration of the dissertation process and will be kept indefinitely after that. Data will be kept on a password-protected external drive, which will be in a locked filing cabinet in the home office of the researcher.

### **Limitations**

Limitations of a study are defined as weaknesses in a research design that may influence the outcomes and conclusions of the research (Ross & Bibler Zaidi, 2019). There were two



limitations of this study. One limitation of this study is the potential for participants to have inaccurate recall of their principal preparation experiences. To help mitigate this limitation, a survey question asked respondents to indicate how many years removed they are from completion of their principal preparation program. This was done in an effort to account for the recency of their training when analyzing survey responses. A one-way ANOVA was calculated to analyze whether levels of NELP preparation differ based on time spent since completing a principal preparation program. This helped to determine if the recall and years removed from the program significantly contribute to varied responses of participants. A second limitation is that the surveys were sent during summer break, not during the regular school year. Principals may not have checked their work emails if they were on break during this time. This was mitigated by providing a one-week extension given the low response rate after the end of the two-week initial period.

Delimitations of a study are specific choices made by the researcher based on the study's boundaries. Delimitations in a study include the choice of questions, variables, theoretical framework, and methodology (Simon & Goes, 2013). A delimitation of this study was the use of convenience sampling. Convenience sampling was used since it provides the most accessible source for possible participants. Another delimitation was the use of the Principal Preparation Field Experience survey (Dodson, 2015). The survey has unclear reliability statistics, but was used for this study since it aligns with the construct of an internship. The seven constructs survey did not address this construct; thus it is required to gain a complete understanding of principals' perceptions of all eight NELP constructs.

### **Summary**

This chapter discussed using a quantitative approach to answer the following research questions:

Research Question 1. Is there a difference in principals' perceived adequacy of training based on the type of program completed?;

Research Question 2. Is there a difference in principals' perceived adequacy of training based on how many years they have served as a principal?;

Research Question 3. Is there a difference in principals' perceived adequacy of training based on the Education Service Center region in which they currently serve?

By using a quantitative approach, these perspectives can be objectively analyzed. Given the variable type and the descriptive nature of the study, a One-Way ANOVA was selected to answer the research questions. Though only a few quantitative studies have been done on PPPs (Anderson & Reynolds, 2015; Fuller & Hollingworth, 2016), quantitative studies have been used extensively to study problems in education (Grissom et al., 2021; Stone-Johnson, 2014; Tekleselassie & Choi, 2021).

The use of two peer-reviewed instruments ensured that all eight constructs of the NELP standards were reviewed. These instruments were developed and proven valid and credible (Boyland et al., 2022; Dodson, 2015). The survey was distributed to every principal with a listed email address in the state of Texas, with the goal of representation from every region of the state and every school level. Missing data was addressed before any tests were ran. Some limitations and delimitations were discussed along with mitigating strategies. The information gathered from this survey is summarized in chapter four. The results of the data collected and the analysis of the data is visually presented and explained. First, the results of all descriptive tests and analyses are explained. This is followed by the inferential analysis of the significant One-Way ANOVA tests

run on the data as they relate to each research question. This chapter concludes with the findings. Based on these findings, conjectures as to the training of these programs are discussed.

## CHAPTER IV

### DATA ANALYSIS AND RESULTS

The problem surrounding principal preparation programs across the United States is the variation in the training and preparation of aspiring K-12 leaders (Anderson & Reynolds, 2015; Davis, 2010). Variations in preparation programs have been shown to lead to a gap between classroom and application, which prevents gains to be made regarding the national principal shortage (National Association of Secondary School Principals, 2017). The purpose of this quantitative, non-experimental, retrospective, descriptive study (O'Dwyer & Bernauer, 2013) was to examine principals' perception of the adequacy of training they received in their principal preparation program (PPP).

There is little research that studies principal preparation programs using a quantitative approach (Johnson & James, 2018). A quantitative approach allowed this research to examine individual variables to determine their impact on perceived preparation of principals. An examination of phenomena of a preparation program using a retrospective approach allowed for these phenomena to be explored in order to better identify possible relationships in the variables studied. This phenomenon was not influenced or adjusted in any way by the researcher, which makes this a non-experimental study. The use of a descriptive approach ensured the characteristics of preparation programs could be analyzed in isolation or combination to see what, if any, influence they had on perceived adequacy of training. The perceptions of current principals were analyzed to answer the following research questions:

Research Question 1: Is there a difference in principals' perceived adequacy of training based on the type of program completed?

Research Question 2: Is there a difference in principals' perceived adequacy of training based on how many years they have served as a principal?

Research Question 3: Is there a difference in principals' perceived adequacy of training based on the Education Service Center region in which they currently serve?

This chapter will begin by describing the sample characteristics and demographics. This is followed by descriptive statistics for the variables of interest, which are types of preparation programs; the years an individual has served as a principal; and the Education Service Center region in which participants currently serves. Information regarding missing data, outliers, and potential limitations of the data will be discussed. The next portion of this chapter will describe the data analysis procedures in detail. This will be followed by the data and analysis of the inferential tests.

### **Descriptive Findings**

A total of 245 participants made up the sample for this study. The following will provide a description of the sample, including their gender, years of educator experience (exclusive of their years as a principal), and their years of experience as a principal. Demographics of their current assigned campus will follow, including the regional and geographic location of their current assigned campus. This section will continue with demographics of their PPP, and conclude with a descriptive analysis of the NELP variables used to answer the research questions.

#### **Demographic Analysis**

From the 245 participants, 63.3% ( $n = 155$ ) were female. The remaining 36.7% ( $n = 90$ ) were male. Table 3 shows the gender demographics for the sample.

**Table 3***Gender Demographics*

	N	%
Male	90	36.7%
Female	155	63.3%

The participants varied in their years of experience, ranging from five through fifty years. A breakdown of years of experience can be seen in Table 4. The years of experience was defined as years serving in any education role, such as a teacher, instructional coach, assistant principal, and principal. The mean total years was close to 23 years.

**Table 4***Total Years of Educator Experience*

	N	%
1-10 YEARS	10	4.1%
11-20 YEARS	89	36.3%
21-30 YEARS	111	45.3%
31-50 YEARS	35	14.3%

Participants also varied in their years of principal experience from those who are first-year principals, to those completing over 40 years of service. A complete breakdown of years of experience as a principal can be found in Table 5. Participants' mean years of principal experience was seven years.

**Table 5***Years of Principal Experience*

	N	%
0-5 YEARS	127	51.8%
6-10 YEARS	61	24.9%
11-15 YEARS	33	13.5%
16 OR MORE YEARS	24	9.8%

Representation from all twenty Regional Service Centers in Texas was present. Region four had the largest number of participants with 14.3% ( $n = 35$ ). Regions 10 and 20 both had 9% ( $n = 22$ ) of participant representation. Region 19 made up less than 1% of the sample size ( $n = 2$ ). The frequencies for regions can be found in Table 6.

**Table 6***Region Education Service Centers*

	N	%
1	16	6.5%
2	16	6.5%
3	4	1.6%
4	35	14.3%
5	5	2.0%
6	17	6.9%
7	13	5.3%
8	3	1.2%
9	4	1.6%
10	22	9.0%
11	14	5.7%
12	16	6.5%

13	20	8.2%
14	5	2.0%
15	11	4.5%
16	3	1.2%
17	6	2.4%
18	11	4.5%
19	2	0.8%
20	22	9.0%

The sample size included principals serving in different school types as well. The majority of the sample, 90.2% ( $n = 221$ ) serve as a principal in a public school. This is followed by 8.6% ( $n = 21$ ) of principals who serve in a charter school, and 1.2% ( $n = 3$ ) who serve in a magnet school. While the survey did have the option of private school, no participants of the survey indicated work at a private school. The results of this demographic can be seen in Table 7.

**Table 7**

*Campus Type*

	N	%
Public	221	90.2%
Charter	21	8.6%
Magnet	3	1.2%

Additionally, participants serve in varied school level settings. This is shown in Table 8. The majority of participants, 42% ( $n = 103$ ) currently serve in an elementary school. Both middle/junior high school and high school had 24.9% ( $n = 61$ ) of participants. The remaining 8.2% ( $n = 20$ ) worked in a (P)K-12 school setting.



**Table 8***School Level*

	N	%
Elementary School	103	42.0%
Middle/Junior High	61	24.9%
High School	61	24.9%
(P)K-12	20	8.2%

With regard to the PPPs participants completed, 89% ( $n = 218$ ) included a required internship as part of their program. The remaining 11% ( $n = 27$ ) did not require an internship as part of their program. Table 9 shows the frequencies with regard to whether or not an internship was required in the preparation program.

**Table 9***Required Internship*

	N	%
Yes	218	89.0%
No	27	11.0%

**Descriptive Analysis**

Table 10 shows the results of the descriptive analysis completed on the interval dependent variables. These variables included the mean score of the NELP Standard 1: Mission, Vision, and Improvement, Standard 2: Ethics and Professional Norms, Standard 3: Equity, Inclusiveness, and Cultural Responsiveness, Standard 4: Learning and Instruction, Standard 5: Community and External Leadership, Standard 6: Operations and Management, and Standard 7: Building Professional Capacity, along with the summative score of Standard 8: Internship.

**Table 10***Descriptive Statistics – NELP Standards*

	N	Min.	Max.	Mean	Std. Deviation	Skewness	Kurtosis		
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
NELP Standard 1	245	1.83	6.00	4.73	.81	-.83	.16	1.19	.31
NELP Standard 2	245	2.00	6.00	5.09	.68	-1.10	.16	2.45	.31
NELP Standard 3	245	1.30	6.00	4.61	.82	-.73	.16	1.50	.31
NELP Standard 4	245	1.50	6.00	4.48	.85	-.49	.16	.64	.31
NELP Standard 5	245	1.17	6.00	4.66	.83	-.84	.16	1.52	.31

NELP Standard 6	245	1.33	6.00	4.75	.78	-.98	.16	2.17	.31
NELP Standard 7	245	1.89	6.00	4.75	.81	-.83	.16	1.14	.31
NELP Standard 8	218	6.00	54.00	34.74	11.46	-.52	.17	-.35	.33
Valid N (listwise)	218								

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The Shapiro-Wilk Test of Normality was calculated for the first research question, the type of preparation program completed by participants. The results of this test reported a significant result ( $p < .05$ ), indicating a possible non-normal distribution of the data. Table 11 includes the results of this test. The skewness and kurtosis levels were within acceptable ranges for parametric testing (Gravetter et al., 2020).

**Table 11**

*Test of Normality - Program Type*

		Shapiro-Wilk				
	Program Type	Statistic	df	Sig.	Skewness	Kurtosis
NELP Standard 1	Uni – Hybrid	.969	30	.503	-.372	-.276
	Uni – Online	.902	65	<.001	-1.083	1.380
	Uni – In Person	.929	96	<.001	-1.016	2.202
	District – Alt. Cert.	.885	8	.209	.641	-1.047
	RESC – Alt. Cert.	.949	18	.404	-.03	-.52
NELP Standard 2	Uni – Hybrid	.934	30	.063	.397	.564
	Uni – Online	.901	65	<.001	-1.358	3.774
	Uni – In Person	.898	96	<.001	-1.283	2.892
	District – Alt. Cert.	.890	8	.235	-1.044	1.798
	RESC – Alt. Cert.	.929	18	.186	-.257	-.492
NELP Standard 3	Uni – Hybrid	.966	30	.439	-.073	-.462
	Uni – Online	.927	65	<.001	-.792	1.770
	Uni – In Person	.927	96	<.001	-1.039	2.846
	District – Alt. Cert.	.953	8	.741	-.313	-.175
	RESC – Alt. Cert.	.967	18	.742	.211	.085

NELP Standard 4	Uni – Hybrid	.968	30	.497	.222	-.691
	Uni – Online	.945	65	.006	-.573	.515
	Uni – In Person	.928	96	<.001	-1.009	2.339
	District – Alt. Cert.	.856	8	.110	.942	-.530
	RESC – Alt. Cert.	.971	18	.810	.173	-.009
NELP Standard 5	Uni – Hybrid	.959	30	.283	-.047	-.801
	Uni – Online	.934	65	.002	-.887	1.934
	Uni – In Person	.930	96	<.001	-1.147	2.818
	District – Alt. Cert.	.869	8	.146	.445	-1.644
	RESC – Alt. Cert.	.960	18	.610	-.085	-.554
NELP Standard 6	Uni – Hybrid	.962	30	.349	-.052	-.827
	Uni – Online	.886	65	<.001	-1.172	1.744
	Uni – In Person	.908	96	<.001	-1.358	3.783
	District – Alt. Cert.	.933	8	.541	.412	-.791
	RESC – Alt. Cert	.972	18	.834	-.169	-.230
NELP Standard 7	Uni – Hybrid	.913	30	.018	.190	-1.065
	Uni – Online	.922	65	<.001	-.991	1.199
	Uni – In Person	.915	96	<.001	-1.113	2.375
	District – Alt. Cert.	.960	8	.806	-.248	-.582
	RESC – Alt. Cert.	.927	18	.174	-.144	-.184
NELP Standard 8	Uni – Hybrid	.894	30	.006	-1.188	1.646
	Uni – Online	.943	65	.005	-.353	-.945
	Uni – In Person	.972	96	.040	-.384	-.395

District – Alt. Cert.	.839	8	.074	.829	-.712
RESC – Alt. Cert.	.945	18	.348	-.590	-.189

ble uses shorthand for the types of program. Uni-Hybrid = hybrid university-based program. Uni-Online = fully online university-based program. Uni-In Person = fully in-person university-based program. District-Alt. Cert. = an alternative certification program through a school district. RESC-Alt. Cert. = an alternative certification program through a regional education service center.

The Shapiro-Wilk Test of Normality was calculated for the second research question, on the variable related to years of principal experience. The results of this test reported a significant result ( $p < .05$ ), indicating a possible non-normal distribution of the data. Table 12 includes the results of this test. The skewness and kurtosis levels were within acceptable ranges for parametric testing (Gravetter et al., 2020).

**Table 12**

*Test of Normality - Years of Principal Experience*

		Shapiro-Wilk				
	Principal Experience	Statistic	df	Sig.	Skewness	Kurtosis
NELP Standard 1	0-5 years	.951	118	<.001	-.71	1.27
	6-10 years	.895	53	<.001	-1.28	2.22
	11-15 years	.919	26	.044	-1.20	2.39
	16 or more years	.911	20	.067	-.38	-1.31
0-5 years		.898	118	<.001	-1.30	3.84

NELP Standard 2	6-10 years	.913	53	<.001	-1.12	2.21
	11-15 years	.905	26	.020	-.84	.07
	16 or more years	.848	20	.005	-1.37	2.67
NELP Standard 3	0-5 years	.917	118	<.001	-1.07	2.98
	6-10 years	.942	53	.012	-.85	1.56
	11-15 years	.962	26	.442	-.30	-.56
	16 or more years	.934	20	.185	-.07	-1.08
NELP Standard 4	0-5 years	.964	118	.003	-.37	.65
	6-10 years	.932	53	.005	-1.04	2.52
	11-15 years	.966	26	.517	-.45	.10
	16 or more years	.949	20	.345	-.50	-.04
NELP Standard 5	0-5 years	.961	118	.002	-.58	.81
	6-10 years	.965	53	.121	-.37	.08
	11-15 years	.961	26	.409	-.59	.16
	16 or more years	.873	20	.013	-1.49	2.80
NELP Standard 6	0-5 years	.944	118	<.001	-.73	1.61
	6-10 years	.873	53	<.001	-1.45	3.13
	11-15 years	.916	26	.036	-.92	.59
	16 or more years	.861	20	.008	-1.44	2.74
NELP Standard 7	0-5 years	.938	118	<.001	-.79	1.62
	6-10 years	.913	53	<.001	-.99	1.45
	11-15 years	.931	26	.083	-.97	1.31
	16 or more years	.902	20	.045	-1.12	1.21
NELP Standard 8	0-5 years	.964	118	.003	-.43	-.50
	6-10 years	.952	53	.031	-.69	.07
	11-15 years	.927	26	.064	-.61	-.63

16 or more years	.965	20	.638	-.19	.25
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The Shapiro-Wilk Test of Normality was calculated for the third research question, on the Education Service Center regions in the state of Texas. The results of this test reported a significant result ( $p < .05$ ), indicating a possible non-normal distribution of the data. Table 13 includes the results of this test. The skewness and kurtosis levels were within acceptable ranges for parametric testing (Gravetter et al., 2020).

**Table 13**

*Test of Normality - ESC Region of Texas*

		Shapiro-Wilk				
	ESC Regions	Statistic	df	Sig.	Skewness	Kurtosis
NELP Standard 1	South TX ESC region	.942	69	.003	-.77	1.37
	East TX ESC region	.953	52	.038	-.63	.93
	North TX ESC region	.924	58	.001	-1.02	1.34
	West TX ESC region	.932	39	.020	-.88	.83
NELP Standard 2	South TX ESC region	.920	69	<.001	-1.05	1.83
	East TX ESC region	.929	52	.004	-.65	.74
	North TX ESC region	.842	58	<.001	-1.75	5.64
	West TX ESC region	.944	39	.051	-.75	.61
	South TX ESC region	.887	69	<.001	-1.35	3.56



NELP Standard 3	East TX ESC region	.971	52	.223	-.11	.02
	North TX ESC region	.953	58	.024	-.66	.90
	West TX ESC region	.955	39	.122	-.34	.12
NELP Standard 4	South TX ESC region	.950	69	.008	-.69	1.14
	East TX ESC region	.973	52	.284	-.04	-.42
	North TX ESC region	.941	58	.007	-.78	1.42
	West TX ESC region	.959	39	.161	-.38	-.31
NELP Standard 5	South TX ESC region	.950	69	.008	-.68	.31
	East TX ESC region	.959	52	.074	-.17	-.21
	North TX ESC region	.929	58	.002	-1.09	2.22
	West TX ESC region	.942	39	.044	-.73	.41
NELP Standard 6	South TX ESC region	.946	69	.005	-.67	.88
	East TX ESC region	.961	52	.090	-.42	.28
	North TX ESC region	.884	58	<.001	-1.40	3.15
	West TX ESC region	.900	39	.002	-1.25	1.72
	South TX ESC region	.920	69	<.001	-.94	2.04

NELP Standard 7	East TX ESC region	.950	52	.028	-.58	.44
	North TX ESC region	.930	58	.002	-.95	1.25
	West TX ESC region	.916	39	.007	-.92	.56
NELP Standard 8	South TX ESC region	.973	69	.139	-.35	.16
	East TX ESC region	.945	52	.018	-.69	-.19
	North TX ESC region	.955	58	.031	-.56	-.48
	West TX ESC region	.951	39	.091	-1.50	-1.0

*Note.* South Texas ESC region includes regions 1, 2, 3, 13, and 20. East Texas ESC region includes regions 4, 5, and 6. North Texas ESC region includes regions 7, 8, 10, 11, and 12. West Texas ESC region includes regions 9, 14, 15, 16, 17, 18, and 19.

Levene's Test for Homogeneity was calculated for the first research question, on the type of principal preparation program attended and reported a significant result ( $p < .05$ ), indicating unequal variances between groups for Standard 3: Equity, Inclusiveness, and Cultural Responsiveness and Standard 8: Internship. A result ( $p > .05$ ) was found for the remaining standards, indicating equal variances between groups. Table 14 includes the complete results of this test.

**Table 14***Tests of Homogeneity of Variances - Preparation Program Type*

		Levene Statistic	df1	df2	Sig.
NELP Standard 1	Based on Mean	1.438	4	240	.222
	Based on Median	.979	4	240	.419
	Based on Median and with adjusted df	.979	4	217.858	.420
	Based on trimmed mean	1.313	4	240	.266
NELP Standard 2	Based on Mean	1.462	4	240	.214
	Based on Median	1.383	4	240	.240
	Based on Median and with adjusted df	1.383	4	225.003	.241
	Based on trimmed mean	1.436	4	240	.223
NELP Standard 3	Based on Mean	2.728	4	240	.030
	Based on Median	2.239	4	240	.065
	Based on Median and with adjusted df	2.239	4	217.254	.066
	Based on trimmed mean	2.584	4	240	.038
NELP Standard 4	Based on Mean	.819	4	240	.514
	Based on Median	.548	4	240	.701
	Based on Median and with adjusted df	.548	4	228.184	.701
	Based on trimmed mean	.778	4	240	.540
NELP Standard 5	Based on Mean	1.330	4	240	.259
	Based on Median	1.105	4	240	.355
	Based on Median and with adjusted df	1.105	4	223.750	.355
	Based on trimmed mean	1.282	4	240	.278

NELP Standard 6	Based on Mean	.858	4	240	.490
	Based on Median	.527	4	240	.716
	Based on Median and with adjusted df	.527	4	211.787	.716
	Based on trimmed mean	.753	4	240	.557
NELP Standard 7	Based on Mean	1.116	4	240	.350
	Based on Median	.700	4	240	.593
	Based on Median and with adjusted df	.700	4	218.069	.593
	Based on trimmed mean	.981	4	240	.419
NELP Standard 8	Based on Mean	2.856	4	213	.025
	Based on Median	2.884	4	213	.024
	Based on Median and with adjusted df	2.884	4	206.891	.024
	Based on trimmed mean	2.921	4	213	.022

Levene's Test for Homogeneity was calculated for the second research question, on years of principal experience and reported a significant result ( $p < .05$ ), indicating unequal variances between groups for Standard 6: Operations and Management. The other seven standards showed a significant result ( $p > .05$ ) indicating equal variances between groups.

Table 15 includes the complete results of this test.

**Table 15**

*Tests of Homogeneity of Variances - Years of Principal Experience*

	Levene Statistic	df1	df2	Sig.
Based on Mean	.690	3	241	.559
Based on Median	.543	3	241	.653

NELP Standard 1	Based on Median and with adjusted df	.543	3	231.079	.653
	Based on trimmed mean	.624	3	241	.600
NELP Standard 2	Based on Mean	1.393	3	241	.246
	Based on Median	1.349	3	241	.259
	Based on Median and with adjusted df	1.349	3	233.865	.259
	Based on trimmed mean	1.318	3	241	.269
NELP Standard 3	Based on Mean	1.436	3	241	.233
	Based on Median	1.370	3	241	.253
	Based on Median and with adjusted df	1.370	3	239.391	.253
	Based on trimmed mean	1.453	3	241	.228
NELP Standard 4	Based on Mean	1.115	3	241	.344
	Based on Median	1.131	3	241	.337
	Based on Median and with adjusted df	1.131	3	232.844	.337
	Based on trimmed mean	1.120	3	241	.341
NELP Standard 5	Based on Mean	2.091	3	241	.102
	Based on Median	1.476	3	241	.222
	Based on Median and with adjusted df	1.476	3	212.652	.222
	Based on trimmed mean	1.822	3	241	.144
NELP Standard 6	Based on Mean	2.815	3	241	.040
	Based on Median	1.921	3	241	.127
	Based on Median and with adjusted df	1.921	3	214.285	.127
	Based on trimmed mean	2.310	3	241	.077
	Based on Mean	1.303	3	241	.274

NELP Standard 7	Based on Median	.983	3	241	.402
	Based on Median and with adjusted df	.983	3	235.771	.402
	Based on trimmed mean	1.092	3	241	.353
NELP Standard 8	Based on Mean	.821	3	214	.484
	Based on Median	.823	3	214	.483
	Based on Median and with adjusted df	.823	3	209.922	.483
	Based on trimmed mean	.795	3	214	.498

Levene's Test of Homogeneity was calculated for the third research question, on the ESC region in which participants are working. A significant result ( $p < .05$ ) was indicated for Standard 5: Community and External Leadership, indicating unequal variances between groups. A significant result ( $p > .05$ ), indicating equal variances for the remaining standards. The results of this test can be seen in Table 16.

**Table 16**

*Tests of Homogeneity of Variances - ESC Region*

		Levene Statistic	df1	df2	Sig.
NELP Standard 1	Based on Mean	1.405	3	241	.242
	Based on Median	1.597	3	241	.191
	Based on Median and with adjusted df	1.597	3	234.216	.191
	Based on trimmed mean	1.403	3	241	.243
NELP Standard 2	Based on Mean	.339	3	241	.797
	Based on Median	.319	3	241	.811
	Based on Median and with adjusted df	.319	3	221.211	.811

	Based on trimmed mean	.330	3	241	.803
NELP Standard 3	Based on Mean	1.851	3	241	.138
	Based on Median	1.668	3	241	.175
	Based on Median and with adjusted df	1.668	3	213.900	.175
	Based on trimmed mean	1.739	3	241	.160
NELP Standard 4	Based on Mean	.428	3	241	.733
	Based on Median	.406	3	241	.749
	Based on Median and with adjusted df	.406	3	218.194	.749
	Based on trimmed mean	.415	3	241	.743
NELP Standard 5	Based on Mean	3.807	3	241	.011
	Based on Median	3.184	3	241	.025
	Based on Median and with adjusted df	3.184	3	213.182	.025
	Based on trimmed mean	3.616	3	241	.014
NELP Standard 6	Based on Mean	1.601	3	241	.190
	Based on Median	1.199	3	241	.311
	Based on Median and with adjusted df	1.199	3	221.938	.311
	Based on trimmed mean	1.463	3	241	.225
NELP Standard 7	Based on Mean	1.795	3	241	.149
	Based on Median	1.424	3	241	.236
	Based on Median and with adjusted df	1.424	3	236.199	.236
	Based on trimmed mean	1.665	3	241	.175
	Based on Mean	1.820	3	214	.144
	Based on Median	1.566	3	214	.199

NELP Standard 8	Based on Median and with adjusted df	1.566	3	208.723	.199
	Based on trimmed mean	1.798	3	214	.149

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### **Data Analysis Procedures**

Data from Qualtrics was uploaded into SPSS v.29. Data was cleaned by reviewing the data once uploaded into SPSS to ensure no missing or incomplete data. Survey data that was incomplete was removed following Cronk's (2020) step-by-step manual. Descriptive statistics were run on the demographic information collected from participants (Cronk, 2020). The means, frequencies, and standard deviations for participants' gender, total years of educator experience, years of principal experience, type of campus in which they currently serve, instructional level of their current school, Texas region in which they currently serve, and whether their PPP required an internship. Running descriptive analyses on demographic variables, helped to highlight and understand patterns that exist in the data. Descriptive statistics also allowed for the evaluation of the normality of the variables so assumptions of the data can be made (Cronk, 2020).

To answer the research questions, One-Way ANOVA's were conducted. Inferential One-Way ANOVA's are used to determine if differences in the means of two or more groups are meaningfully different. Individuals were only in one group in this test, with one categorical independent variable, three or more levels, and a continuous, quantifiable dependent variable used as the interval scale. The F-distribution was employed to determine if the differences between two or more groups were significant. When the null hypothesis is true, the F-distribution describes the sampling distribution. While an F-value more or less than one shows differences between the group means in the population, an F-value near 1 suggests no variation between the group means (O'Dwyer & Bernauer, 2013). Based on the Homogeneity of Variances *p*-value,



either the ANOVA or Welch table will be used. If the ANOVA table is used, the Tukey table will be used for the post-hoc analysis. If the Welch table is used, the Games-Howell table will be utilized for post-hoc analysis. Regardless of the table used, the output will provide every possible combination of levels of the independent variable being studied (Cronk, 2020).

## **Results**

The following section will discuss the inferential tests that were run to answer the three research questions. The descriptive statistics of the variables will be discussed first for each question, followed by the equal variances of the variables. Finally, the results of the one-way ANOVA will be discussed last for each research question.

### **Research Question 1**

Before computing a one-way ANOVA to compare the mean score of NELP-related standards to participants who were trained from one of five PPP types, a descriptive analysis was computed on the variables. Descriptive statistics comparing the type of certification program completed with the NELP-related standards is presented in Table 17.

**Table 17***Descriptives – NELP Standards and Program Type*

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min.	Max.
						Lower Bound	Upper Bound		
NELP Standard 1	Uni – Hybrid	33	4.70	.68	.12	4.46	4.94	3.17	5.83
	Uni – Online	74	4.63	.88	.10	4.42	4.83	2.00	6.00
	Uni – In Person	109	4.82	.81	.08	4.67	4.98	1.83	6.00
	District – Alt. Cert.	9	4.52	1.08	.36	3.69	5.34	3.17	6.00
	RESC – Alt. Cert.	20	4.71	.61	.14	4.42	5.00	3.67	6.00
	Total	245	4.73	.81	.05	4.62	4.83	1.83	6.00
NELP Standard 2	Uni – Hybrid	33	5.12	.44	.08	4.96	5.28	4.25	6.00
	Uni - Online	74	4.97	.74	.09	4.80	5.15	2.00	6.00

	Uni – In Person	109	5.19	.66	.06	5.06	5.31	2.50	6.00
	District – Alt. Cert.	9	5.11	.86	.29	4.45	5.77	3.25	6.00
	RESC – Alt. Cert.	20	4.89	.73	.16	4.55	5.23	3.50	6.00
	Total	245	5.09	.68	.04	5.00	5.17	2.00	6.00
NELP Standard 3	Uni – Hybrid	33	4.50	.66	.11	4.26	4.73	3.30	5.90
	Uni – Online	74	4.57	.76	.09	4.39	4.74	2.00	6.00
	Uni – In Person	109	4.72	.86	.08	4.56	4.88	1.30	6.00
	District – Alt. Cert.	9	4.32	1.41	.47	3.24	5.41	1.70	6.00
	RESC – Alt. Cert.	20	4.47	.72	.16	4.13	4.80	3.20	6.00
	Total	245	4.61	.82	.05	4.51	4.71	1.30	6.00
NELP Standard 4	Uni – Hybrid	33	4.35	.69	.12	4.10	4.59	3.17	5.83

	Uni – Online	74	4.42	.88	.10	4.22	4.63	2.00	6.00
	Uni – In Person	109	4.59	.87	.08	4.42	4.75	1.50	6.00
	District – Alt. Cert.	9	4.36	1.06	.35	3.55	5.18	3.17	6.00
	RESC – Alt. Cert.	20	4.32	.77	.17	3.96	4.68	2.83	6.00
	Total	245	4.48	.85	.05	4.37	4.58	1.50	6.00
NELP Standard 5	Uni – Hybrid	33	4.57	.64	.11	4.34	4.79	3.17	5.83
	Uni – Online	74	4.66	.82	.10	4.47	4.85	2.00	6.00
	Uni – In Person	109	4.74	.87	.08	4.57	4.90	1.17	6.00
	District – Alt. Cert.	9	4.52	1.14	.38	3.64	5.40	3.17	6.00
	RESC – Alt. Cert.	20	4.48	.76	.17	4.12	4.83	3.17	6.00
	Total	245	4.66	.83	.05	4.56	4.76	1.17	6.00

NELP Standard 6	Uni – Hybrid	33	4.72	.55	.10	4.53	4.91	3.67	5.89
	Uni – Online	74	4.69	.83	.10	4.50	4.88	2.00	6.00
	Uni – In Person	109	4.85	.81	.08	4.69	5.00	1.33	6.00
	District – Alt. Cert.	9	4.73	.91	.30	4.03	5.43	3.33	6.00
	RESC – Alt. Cert.	20	4.55	.71	.16	4.22	4.88	3.11	6.00
	Total	245	4.75	.78	.05	4.66	4.85	1.33	6.00
NELP Standard 7	Uni – Hybrid	33	4.70	.57	.10	4.50	4.90	3.89	5.89
	Uni – Online	74	4.67	.87	.10	4.47	4.87	2.00	6.00
	Uni – In Person	109	4.85	.83	.08	4.69	5.01	1.89	6.00
	District – Alt. Cert.	9	4.72	1.03	.34	3.93	5.50	2.89	6.00

	RESC – Alt. Cert.	20	4.55	.77	.17	4.19	4.91	3.22	6.00
	Total	245	4.7451	.81416	.05202	4.6427	4.8476	1.89	6.00
NELP Standard 8	Uni – Hybrid	30	36.83	10.71	1.95	32.84	40.83	8.00	54.00
	Uni – Online	65	33.06	13.36	1.66	29.75	36.37	6.00	54.00
	Uni – In Person	97	35.34	10.27	1.04	33.27	37.41	12.00	54.00
	District – Alt. Cert.	8	38.63	10.28	3.63	30.03	47.22	28.00	54.00
	RESC – Alt. Cert.	18	32.39	11.71	2.76	26.57	38.21	9.00	50.00
	Total	218	34.74	11.46	.78	33.21	36.27	6.00	54.00

*Note.* This table uses shorthand for the types of program. Uni-Hybrid = a hybrid university-based program. Uni-Online = a fully online university-based program. Uni-In Person = a fully in-person university-based program. District-Alt. Cert. = an alternative certification program through a school district. RESC-Alt. Cert. = an alternative certification program through a regional education service center.

*Note.* The summative score was used for NELP Standard 8 as opposed to the mean score used to calculate Standards 1 through 7. The total number ( $n = 218$ ) is less than that for the other seven standards ( $N = 245$ ) because this variable collected data only from those who indicated their PPP required an internship.

A one-way ANOVA was computed (Cronk, 2020) to compare the mean score of NELP-related standards to participants who were trained from one of five PPP types. No significant difference was found in regards to the teaching of Standard 1: Mission, Vision, and Improvement ( $F(2.17, 158.18) = 0.82, p > .05$ ), Standard 2: Ethics and Professional Norms ( $F(2.86, 109.39) = 1.57, p > .05$ ), Standard 4: Learning and Instruction ( $F(2.68, 173.20) = .93, p > .05$ ), Standard 5: Community and External Leadership ( $F(1.81, 164.72) = .66, p > .05$ ), Standard 6: Operations and Management ( $F(2.06, 145.83) = .85, p > .05$ ), nor Standard 7: Building Professional Capacity ( $F(2.45, 159.30) = .92, p > .05$ ). Table 18 shows the results of this test.

**Table 18**

*RQ 1 ANOVA*

		Sum of Squares	df	Mean Square	F	Sig.
NELP Standard 1	Between Groups	2.168	4	.542	.823	.512
	Within Groups	158.176	240	.659		
	Total	160.344	244			
NELP Standard 2	Between Groups	2.862	4	.716	1.570	.183
	Within Groups	109.389	240	.456		
	Total	112.251	244			
NELP Standard 4	Between Groups	2.680	4	.670	.928	.448
	Within Groups	173.198	240	.722		
	Total	175.878	244			



NELP Standard 5	Between Groups	1.805	4	.451	.658	.622
	Within Groups	164.714	240	.686		
	Total	166.519	244			
NELP Standard 6	Between Groups	2.062	4	.515	.848	.496
	Within Groups	145.834	240	.608		
	Total	147.895	244			
NELP Standard 7	Between Groups	2.446	4	.612	.921	.452
	Within Groups	159.293	240	.664		
	Total	161.739	244			

To test the variable with unequal variances, a one-way Welch's ANOVA was computed (Cronk, 2020) comparing types of preparation program attended to NELP Standard 3: Equity, Inclusiveness, and Cultural Responsiveness and Standard 8: Internship. A significant difference was not found for Standard 3 ( $F(4, 40.956) = .983, p > .05$ ) nor for Standard 8 ( $F(4, 36.660) = 1.00, p > .05$ ). Table 19 includes the results from this test.

**Table 19**

*Robust Tests of Equality of Means*

		Statistic <sup>a</sup>	df1	df2	Sig.
NELP Standard 3	Welch	.983	4	40.956	.427
NELP Standard 8	Welch	1.006	4	36.660	.417

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a. Asymptotically F distributed.

## **Research Question 2**

Before computing a one-way ANOVA to compare the mean score of NELP-related standards to participants' years of experience as a principal, a descriptive analysis was computed on the variables. Descriptive statistics comparing years of principal experience with the NELP-related standards is presented in Table 20.

**Table 20***Descriptives – NELP Standard and Years of Principal Experience*

						95% Confidence Interval for Mean			
		N	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound	Min.	Max.
NELP Standard 1	0-5 YEARS	127	4.66	.76	.07	4.53	4.80	2.00	6.00
	6-10 YEARS	61	4.72	.87	.11	4.50	4.94	1.83	6.00
	11-15 YEARS	33	4.85	.91	.16	4.53	5.17	2.50	6.00
	16 OR MORE YEARS	24	4.90	.80	.16	4.56	5.24	3.50	6.00
	Total	245	4.72	.81	.052	4.62	4.83	1.83	6.00
NELP Standard 2	0-5 YEARS	127	5.01	.67	.06	4.89	5.12	2.00	6.00
	6-10 YEARS	61	5.10	.65	.08	4.93	5.27	2.88	6.00
	11-15 YEARS	33	5.14	.79	.14	4.86	5.42	3.00	6.00

	16 OR MORE YEARS	24	5.41	.55	.11	5.18	5.64	3.75	6.00
	Total	245	5.09	.68	.04	5.00	5.17	2.00	6.00
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NELP Standard 3	0-5 YEARS	127	4.56	.79	.07	4.42	4.70	1.30	6.00
	6-10 YEARS	61	4.57	.79	.10	4.36	4.77	2.00	6.00
	11-15 YEARS	33	4.78	.90	.16	4.46	5.10	2.30	6.00
	16 OR MORE YEARS	24	4.74	.96	.20	4.34	5.15	3.00	6.00
	Total	245	4.61	.82	.05	4.51	4.71	1.30	6.00
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NELP Standard 4	0-5 YEARS	127	4.39	.81	.07	4.25	4.53	1.67	6.00
	6-10 YEARS	61	4.53	.85	.11	4.31	4.74	1.50	6.00
	11-15 YEARS	33	4.64	.81	.14	4.35	4.92	3.00	6.00

	16 OR MORE YEARS	24	4.59	1.07	.22	4.14	5.04	2.00	6.00
	Total	245	4.48	.85	.05	4.37	4.58	1.50	6.00
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NELP Standard 5	0-5 YEARS	127	4.66	.75	.07	4.53	4.79	2.00	6.00
	6-10 YEARS	61	4.61	.79	.10	4.41	4.82	2.17	6.00
	11-15 YEARS	33	4.70	.96	.17	4.36	5.04	1.83	6.00
	16 OR MORE YEARS	24	4.74	1.13	.23	4.26	5.21	1.17	6.00
	Total	245	4.66	.83	.05	4.56	4.76	1.17	6.00
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NELP Standard 6	0-5 YEARS	127	4.67	.68	.06	4.55	4.79	2.00	6.00
	6-10 YEARS	61	4.81	.79	.10	4.61	5.01	2.00	6.00
	11-15 YEARS	33	4.88	.83	.14	4.58	5.17	2.78	6.00

	16 OR MORE YEARS	24	4.88	1.10	.22	4.41	5.34	1.33	6.00
	Total	245	4.75	.79	.05	4.66	4.85	1.33	6.00
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NELP Standard 7	0-5 YEARS	127	4.66	.76	.07	4.53	4.80	1.89	6.00
	6-10 YEARS	61	4.79	.81	.10	4.58	4.99	2.44	6.00
	11-15 YEARS	33	4.88	.89	.15	4.57	5.20	2.56	6.00
	16 OR MORE YEARS	24	4.88	1.00	.20	4.45	5.30	2.00	6.00
	Total	245	4.75	.81	.05	4.64	4.85	1.89	6.00
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NELP Standard 8	0-5 YEARS	118	34.22	11.98	1.10	32.04	36.41	8.00	54.00
	6-10 YEARS	53	34.89	11.389	1.56	31.75	38.03	6.00	54.00
	11-15 YEARS	26	35.77	11.41	2.24	31.16	40.38	12.00	51.00

16 OR MORE YEARS	21	36.05	9.02	1.97	31.94	40.15	15.00	53.00
Total	218	34.74	11.46	.78	33.21	36.27	6.00	54.00

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A one-way ANOVA was computed (Cronk, 2020) to compare the mean score of NELP-related standards to participants' years of experience as a principal. No significant difference was found in regards to preparation surrounding Standard 1: Mission, Vision, and Improvement ( $F(1.734, 158.610) = 0.878, p > .05$ ), Standard 2: Ethics and Professional Norms ( $F(3.353, 108.898) = 2.473, p > .05$ ), Standard 3: Equity, Inclusiveness, and Cultural Responsiveness ( $F(1.796, 162.616) = .887, p > .05$ ), Standard 4: Learning and Instruction ( $F(2.288, 173.590) = 1.059, p > .05$ ), Standard 5: Community and External Leadership ( $F(.307, 166.209) = .149, p > .05$ ), Standard 7: Building Professional Capacity ( $F(1.997, 159.742) = 1.004, p > .05$ ), nor Standard 8: Internship ( $F(96.455, 28421.160) = .242, p > .05$ ). Table 21 shows the results of this test.

**Table 21**

*RQ 2 ANOVA*

		Sum of Squares	df	Mean Square	F	Sig.
NELP Standard 1	Between Groups	1.734	3	.578	.878	.453
	Within Groups	158.610	241	.658		
	Total	160.344	244			
NELP Standard 2	Between Groups	3.353	3	1.118	2.473	.062
	Within Groups	108.898	241	.452		
	Total	112.251	244			
NELP Standard 3	Between Groups	1.796	3	.599	.887	.448
	Within Groups	162.616	241	.675		



	Total	164.412	244			
NELP Standard 4	Between Groups	2.288	3	.763	1.059	.367
	Within Groups	173.590	241	.720		
	Total	175.878	244			
NELP Standard 5	Between Groups	.309	3	.103	.149	.930
	Within Groups	166.209	241	.690		
	Total	166.519	244			
NELP Standard 7	Between Groups	1.997	3	.666	1.004	.392
	Within Groups	159.742	241	.663		
	Total	161.739	244			
NELP Standard 8	Between Groups	96.455	3	32.152	.242	.867
	Within Groups	28421.160	214	132.809		
	Total	28517.615	217			

To test the variable with unequal variances, a one-way Welch's ANOVA was computed (Cronk, 2020) comparing Standard 6: Operations and Management to the years of principal experience. A significant difference was not found among years of experience ( $F(3, 66.171) = 1.017, p > .05$ ). Table 22 includes the results from this test.

**Table 22***Robust Tests of Equality of Means*

		Statistic <sup>a</sup>	df1	df2	Sig.
NELP	Welch	1.017	3	66.171	.391
Standard 6					

a. Asymptotically F distributed.

**Research Question 3**

Before computing a one-way ANOVA to compare the mean score of NELP-related standards to Education Service Centers in Texas, a descriptive analysis was computed on the variables. Descriptive statistics comparing years of principal experience with the NELP-related standards is presented in Table 23.

**Table 23***Descriptives – NELP Standards and ESC Region*

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min.	Max.
						Lower Bound	Upper Bound		
NELP Standard 1	South TX ESC region	78	4.76	.77	.09	4.59	4.93	2.33	6.00
	East TX ESC region	57	4.82	.76	.10	4.61	5.02	2.33	6.00
	North TX ESC region	68	4.65	.95	.11	4.42	4.88	1.83	6.00
	West TX ESC region	42	4.67	.73	.11	4.44	4.90	2.50	6.00
	Total	245	4.73	.81	.05	4.62	4.83	1.83	6.00
NELP Standard 2	South TX ESC region	78	5.04	.71	.08	4.88	5.20	2.50	6.00

	East TX ESC region	57	5.14	.60	.08	4.98	5.30	3.25	6.00
	North TX ESC region	68	5.07	.75	.09	4.88	5.25	2.00	6.00
	West TX ESC region	42	5.13	.62	.10	4.93	5.32	3.50	6.00
	Total	245	5.09	.68	.04	5.00	5.17	2.00	6.00
NELP Standard 3	South TX ESC region	78	4.66	.91	.10	4.46	4.87	1.30	6.00
	East TX ESC region	57	4.65	.73	.10	4.46	4.85	2.70	6.00
	North TX ESC region	68	4.53	.90	.11	4.31	4.74	2.00	6.00
	West TX ESC region	42	4.58	.63	.10	4.38	4.78	3.30	6.00
	Total	245	4.61	.82	.05	4.51	4.71	1.30	6.00

NELP Standard 4	South TX ESC region	78	4.55	.85	.10	4.36	4.74	1.67	6.00
	East TX ESC region	57	4.54	.77	.10	4.33	4.74	2.83	6.00
	North TX ESC region	68	4.36	.96	.12	4.13	4.59	1.50	6.00
	West TX ESC region	42	4.44	.75	.12	4.21	4.67	2.50	5.92
	Total	245	4.48	.85	.05	4.37	4.58	1.50	6.00
NELP Standard 5	South TX ESC region	78	4.69	.86	.10	4.50	4.89	1.83	6.00
	East TX ESC region	57	4.78	.70	.09	4.60	4.98	3.17	6.00
	North TX ESC region	68	4.54	.99	.12	4.30	4.78	1.17	6.00

	West TX ESC region	42	4.63	.59	.09	4.44	4.81	3.17	5.67
	Total	245	4.66	.83	.05	4.56	4.76	1.17	6.00
NELP Standard 6	South TX ESC region	78	4.83	.71	.08	4.68	4.99	2.44	6.00
	East TX ESC region	57	4.79	.70	.09	4.61	4.98	2.78	6.00
	North TX ESC region	68	4.65	.93	.11	4.43	4.88	1.33	6.00
	West TX ESC region	42	4.71	.74	.11	4.48	4.95	2.44	6.00
	Total	245	4.75	.78	.05	4.66	4.85	1.33	6.00
NELP Standard 7	South TX ESC region	78	4.77	.83	.09	4.59	4.96	1.89	6.00
	East TX ESC region	57	4.85	.72	.09	4.66	5.04	2.67	6.00

	North TX ESC region	68	4.66	.92	.11	4.43	4.88	2.00	6.00
	West TX ESC region	42	4.70	.72	.11	4.47	4.92	2.78	6.00
	Total	245	4.75	.81	.05	4.64	4.85	1.89	6.00
NELP Standard 8	South TX ESC region	69	37.06	10.09	1.21	34.63	39.48	6.00	54.00
	East TX ESC region	52	35.32	10.96	1.52	32.28	38.38	9.00	54.00
	North TX ESC region	58	34.83	11.57	1.52	31.79	37.87	8.00	54.00
	West TX ESC region	39	29.74	13.05	2.09	25.51	33.98	9.00	54.00
	Total	218	34.7431	11.46	.78	33.21	36.27	6.00	54.00

*Note.* South Texas ESC region includes regions 1, 2, 3, 13, and 20. East Texas ESC region includes regions 4, 5, and 6. North Texas ESC region includes regions 7, 8, 10, 11, and 12. West Texas ESC region includes regions 9, 14, 15, 16, 17, 18, and 19.

A one-way ANOVA was computed (Cronk, 2020) to compare the mean score of NELP-related standards to the Education Service Centers in Texas. No significant difference was found in regards to Standard 1: Mission, Vision, and Improvement ( $F(1.11, 159.24) = 0.56, p > .05$ ), Standard 2: Ethics and Professional Norms ( $F(0.42, 111.84) = .30, p > .05$ ), Standard 3: Equity, Inclusiveness, and Cultural Responsiveness ( $F(.85, 163.57) = .42, p > .05$ ), Standard 4: Learning and Instruction ( $F(1.61, 174.26) = .74, p > .05$ ), Standard 6: Operations and Management ( $F(1.37, 146.53) = .75, p > .05$ ), nor Standard 7: Building Professional Capacity ( $F(1.26, 160.48) = .63, p > .05$ ). Table 24 shows the results of this test.

**Table 24**

*RQ 3 ANOVA*

		Sum of Squares	df	Mean Square	F	Sig.
NELP Standard 1	Between Groups	1.106	3	.369	.558	.643
	Within Groups	159.238	241	.661		
	Total	160.344	244			
NELP Standard 2	Between Groups	.415	3	.138	.298	.827
	Within Groups	111.836	241	.464		
	Total	112.251	244			
NELP Standard 3	Between Groups	.847	3	.282	.416	.742
	Within Groups	163.565	241	.679		
	Total	164.412	244			



NELP Standard 4	Between Groups	1.614	3	.538	.744	.527
	Within Groups	174.264	241	.723		
	Total	175.878	244			
NELP Standard 6	Between Groups	1.371	3	.457	.752	.522
	Within Groups	146.524	241	.608		
	Total	147.895	244			
NELP Standard 7	Between Groups	1.256	3	.419	.628	.597
	Within Groups	160.483	241	.666		
	Total	161.739	244			

A one-way ANOVA was computed (Cronk, 2020) to compare the sum score of Standard 8: Internship to participants' Texas region. A significant difference was found ( $F(1362.69, 27154.92) = 3.58, p < .05$ ). The perceived adequacy of training differed significantly based on their region of service. Table 25 shows the results of this test.

**Table 25**

*NELP Standard 8 ANOVA*

		Sum of Squares	df	Mean Square	F	Sig.
NELP Standard 8	Between Groups	1362.692	3	454.231	3.580	.015
	Within Groups	27154.922	214	126.892		
	Total	28517.615	217			

The eta squared effect size [ $\eta^2 = .048$ ] suggested a small practical significance (Cronk, 2020). The result of this test can be seen in Table 26.

**Table 26**

*ANOVA Effect Sizes<sup>a</sup>*

		Point Estimate	95% Confidence Interval	
			Lower	Upper
NELP Standard 8	Eta-squared	.048	.002	.103

a. Eta-squared are estimated based on the fixed-effect model.

Tukey HSD was used to determine the nature of the differences between ESC regions. This analysis revealed that the pairwise comparison between South Texas ESC region ( $M = 37.06$ ,  $sd = 10.09$ ) and West Texas ESC region ( $M = 29.74$ ,  $sd = 13.05$ ) significantly differed. These results can be found in Table 27.

**Table 27***Multiple Comparisons*

Dependent Variable		(I) ESC Region	(J) ESC Region	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
NELP Standard 8	Tukey HSD	South TX ESC Region	East TX ESC Region	1.731	2.06863	.837	-3.6253	7.0874
			North TX ESC Region	2.23038	2.00669	.683	-2.9656	7.4264
			West TX ESC Region	7.31438*	2.25669	.007	1.4711	13.1577
		East TX ESC Region	South TX ESC Region	-1.73105	2.06863	.837	-7.0874	3.6253
			North TX ESC Region	.49934	2.15129	.996	-5.0711	6.0697
			West TX ESC Region	7.31438*	2.25669	.007	1.4711	13.1577

	West TX ESC Region	5.58333	2.38619	.092	-.5953	11.7620
North TX ESC Region	South TX ESC Region	-2.23038	2.00669	.683	-7.4264	2.9656
	East TX ESC Region	-.49934	2.15129	.996	-6.0697	5.0711
	West TX ESC Region	5.08400	2.33269	.132	-.9561	11.1241
West TX ESC Region	South TX ESC Region	-7.31438*	2.25669	.007	- 13.1577	-1.4711
	East TX ESC Region	-5.58333	2.38619	.092	- 11.7620	.5953
	North TX ESC Region	-5.08400	2.33269	.132	- 11.1241	.9561

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\*. The mean difference is significant at the 0.05 level.

To test the variable with unequal variances, a one-way Welch's ANOVA was computed (Cronk, 2020) comparing NELP Standard 5: Community and External Leadership with ESC region. A significant difference was not found among ESC regions ( $F(3, 128.726) = .980, p > .05$ ). Table 28 includes the results of this test.

**Table 28**

*Robust Tests of Equality of Means*

		Statistic <sup>a</sup>	df1	df2	Sig.
NELP Standard 5	Welch	.980	3	128.726	.405

a. Asymptotically F distributed.

### Summary

This chapter began with a description of the sample. Participants' gender, years of educator experience, years of principal experience, demographic data related to the school in which they currently serve, and the requirements of an internship as part of their PPP were presented. This was followed by normality tests on the three variables used to answer the research questions. These three variables (type of program completed, years of experience as a principal, and the ESC region in which they currently are employed) were all found to be within acceptable ranges for normality. With normality established, the one-way ANOVA for each research question was run.

The first research question was: Is there a difference in principals' perceived adequacy of training based on the type of program completed? A one-way ANOVA was run using the type of program as the dependent variable to determine if the program type had a significant difference in participants' perception of preparation in regard to the eight NELP standards. This test showed no significant difference for any of the constructs.

The second research question was: Is there a difference in principals' perceived adequacy of training based on how many years they have served as a principal? A one-way ANOVA was run using the categorical variable of years of experience as a principal as the dependent variable to determine if experience had a significant difference in participants' perception of preparation in regard to the eight NELP constructs. This test showed no significant difference for any of the constructs.

The third research question was: Is there a difference in principals' perceived adequacy of training based on the Education Service Center (ESC) region in which they currently serve? A one-way ANOVA was run using the categorical variable ESC regions as a principal as the dependent variable to see if the geographic location had a significant difference in participants' perception of preparation with regard to the eight NELP constructs. This test showed no significant difference for any of the constructs. Though no significant findings were found, there are still implications for principal preparation programs as they relate to the results. These implications will be discussed in chapter five.

## CHAPTER V

### DISCUSSION AND CONCLUSION

The purpose of this quantitative, non-experimental, retrospective, descriptive study (O'Dwyer & Bernauer, 2013) was to examine principals' perceptions of the adequacy of training they received in their principal preparation program (PPP). The study used the perceptions of principals to determine the effectiveness of their PPP to prepare individuals for the principalship. Literature has shown varying effectiveness in these programs (Anderson & Reynolds, 2015; Davis, 2010; National Association of Secondary School Principals, 2017). Yet little research exists which analyzes outcome data related to PPPs (Briggs et al., 2013). This study sought to answer the following three questions related to PPPs:

Research Question 1: Is there a difference in principals' perceived adequacy of training based on the type of program completed?

Research Question 2: Is there a difference in principals' perceived adequacy of training based on how many years they have served as a principal?

Research Question 3: Is there a difference in principals' perceived adequacy of training based on the Education Service Center region in which they currently serve?

A survey was administered to current principals serving in the state of Texas. Responses to the survey were then uploaded for analysis to SPSS v. 29. A one-way ANOVA was used to determine if any significant difference could be found related to each of the three research questions. An inferential One-Way ANOVA is used to determine if differences in the means of two or more groups are meaningfully different. A post-hoc analysis was run if the one-way ANOVA results were shown to be significant.

This study is significant because it adds to the limited quantitative research conducted on PPPs (Anderson & Reynolds, 2015; Fuller & Hollingworth, 2016). This study also adds to the limited research conducted on outcome data, mainly retention in principal employment, of these programs (Donmoyer et al., 2012; Fuller & Hollingworth, 2017; Orr & Orphanos, 2011). Programs vary because each institution develops its own curriculum, or principal preparation program (Brown, 2006; Green, 2012; Vogel & Weiler, 2014). Though changes have been made in the creation and adoption of national standards, issues of standardization still lie at the state level. While universities within the same state have the same state requirements to which they must adhere, variations in the delivery and alignment to professional standards of practice may exist. This variance in principal preparation programs (PPPs) is the reason for further examination of the perceived success of the programs. This chapter will provide a synthesis of the findings along with their significance. The implications of what could occur as a result of this research will also be discussed. This chapter will conclude with recommendations for future research and future PPP pedagogy as institutions seek to train aspiring principals.

### **Synthesis of Findings and Conclusion**

The findings that emerged from this study are bound by the study's design, as described in chapters 1, 2, and 3. The study of principals' perceptions of their preparation program aligns to and advances the research on variations of these programs. This was evident in the high mean and summative scores related to each NELP standard. These standards are supported by research (Dexter et al., 2017; Frick, 2011; Frick et al., 2013; Kearney et al., 2013; Murphy & Torre, 2014; Price, 2012; Scanlan & Lopez, 2012; Sebastian & Allensworth, 2012; Theoharis & O'Toole, 2011; Young & Crow, 2017), and are the current best practices for preparation. This study adds to existing research on PPPs, and can be used in part, in the analysis of how effective these



programs are in preparing individuals for the principalship. Through an analysis of outcomes data, institutions with preparation programs can find and address any gaps in learning and meet the current needs of the principalship. The study findings used to answer the research questions are supported by the study data and literature, which state the importance of high-quality programs that offer applicable learning experiences (Sebastian & Allensworth, 2012; Levin & Bradley, 2019).

## **Findings**

This section will begin by providing the demographic analysis of the sample. The demographic analysis includes personal descriptors, such as gender and years of experience, demographics of their current school, and demographic information related to the type of preparation program completed for their principal certification. A descriptive analysis of the variables used will follow this section. This analysis was completed on the eight NELP Standards, as well as the types of programs respondents completed, their years of experience, and the region of Texas in which they currently work. The findings for each of the three research questions will conclude this section.

### ***Demographic Analysis***

Nearly two-thirds of the sample size was female. This aligns with the demographics related to more females working in the field of education as compared to their male counterparts. However, leadership roles tend to be more male-dominated (Burton & Weiner, 2016). More than half of participants had five or fewer years serving as a principal, though nearly 45% had between 21 and 30 years of experience in education. Given the higher rates of principal turnover in the last five years (Levin & Bradley, 2019), it is not surprising that most of the sample had so few years of experience in the role of principal. Representation from all twenty Education

Service Center (ESC) regions was present in the sample. Most of the sample serve as a principal in a public school setting, which is consistent with Texas school demographics as the majority of schools in Texas are public schools, with public schools numbering private schools 9 to 1 (Fernández, 2020). Additionally, the majority (42%) of the sample work at an elementary school. In regards to the PPP completed, the vast majority had an internship required as part of their program (89%). Levin and Bradley (2019) list an internship as one element of a high-quality preparation program, yet 11% of the sample stated an internship was not required as part of their preparation program. Based on the findings of Orr and Orphanos (2011), the lack of integration practice through the internship can be negatively associated with school climate and school improvement.

### ***Descriptive Analysis***

The descriptive analysis was conducted on the NELP Standard variables, the types of preparation program completed by participants, the variable related to years of experience as a principal, and the ESC region in which they serve. The mean was calculated for the first seven NELP Standards. The lowest mean score, a value of one, meant participants felt strongly their PPP did not adequately prepare them in that standard for the principalship. The highest mean score of six meant participants strongly agreed that their PPP adequately prepared them for that standard of the principalship. With a mean score of 4.48, NELP Standard 4: Learning and Instruction was shown to be the lowest mean score of the seven standards. Participants felt the least prepared in their ability to evaluate, develop, and implement coherent systems of curriculum, instruction, supports, and assessment in an equitable and accessible manner to improve the success of each student. Principals who are not prepared in this standard can have the potential to increase the gap in addressing the needs of all student population groups.

Research conducted by Young and Johnson (2019) describe that more than half of principals felt their program did not prepare them to support the needs of students with disabilities. Though the mean score was still high, this gap is one that needs to be closed. The analysis shows PPPs still struggle, according to the perspective of principals, to prepare principals to lead the learning and instruction on their campus.

NELP Standard 2: Ethics and Professional Norms, had the highest mean score with a 5.09. This high mean score may exist because all educators, from assistant teachers to superintendents, follow the same set of norms as it relates to ethics and professionalism. The Texas Administrative Code is in place for all educators (19 Tex. Admin. Code §247.2, 2018) and is a Continuing Professional Education (CPE) requirement for continued certification and certification renewal (Senate Bill 1267). A principal's ability to lead ethically has been found to have a strong relationship with overall leadership abilities, as perceived by teachers (Webster & Litchka, 2020). The participants in this study may have scored this standard so high because of their experience in leading ethically and training to do so. If they fail in this area, there is potential to face backlash legally, as well as from their teachers and other stakeholders who expect ethical leadership (Mayger & Provinzano, 2022a).

A summative score was used instead of a mean score for Standard 8: Internship. This was intentional in the survey design. This was done because only those who stated they had done a required internship were asked to answer these questions. The survey was designed to determine which types of experiences participants had in their internship, with a higher summative score meaning a variety of experiences during the internship that were NELP aligned and professionally impactful. The lowest summative score was a value of six and the highest possible summative score was 54. The average score was a 34.74. A score between 28 and 36 was shown

to indicate that some experiences were integrated in the internship and participants somewhat agreed they were professionally impactful. When conducting research on current principals, they echo the importance of an internship, but felt aspiring principals were not as well prepared as they should be for the principalship (Anast-May et al., 2011). Principals recommended including opportunities to lead change initiatives, provide data support, and build relationships with staff members as part of PPP internships.

### ***Central Research Questions***

This section will provide results of research question analysis and is divided by the three research questions. Each research question will be restated, followed by a paraphrase of the important statistical findings related to that question. Conclusions based on the findings will be drawn before moving on to the next research question.

**Research Question 1. Is there a difference in principals' perceived adequacy of training based on the type of program completed?** The results found no significant difference in principals' perceived adequacy of training based on the type of program completed. Across all 8 NELP standards, the type of program completed did not change the perceived adequacy of training. This may be due to the common nature of learning via an online platform. The National Center for Education Statistics (2018) found a 29% increase in enrollment of distance education courses from 2012 to 2018. A combination of face-to-face and distance learning courses also increased by 33% during the same time span. Online education became the only option for most in the years 2019 to 2021. With the continued growth of online learning, it appears PPPs are meeting the needs of students via both a virtual learning environment and the traditional in-person environment. This is aligned to research conducted on types of teacher programs, which

found no variation in perceived training for online or in-person modes of delivery (Burazer & Skela, 2021).

Though not statistically significant, the alternative certification program completed through a regional education service center (ESC) had the lowest mean score when compared to the other four types of programs. Though ESCs are a part of the Texas Education Administration (TEA), they do not possess any regulatory authority and are typically governed by a seven-member lay board (TEA, 2023b). The board is in charge of developing policies regarding operations, programs, and services offered through the ESC. Accountability is also not accomplished through the TEA, but instead through an annual evaluation completed by the ESC commissioner. Performance outcome data on those who complete PPPs offered by ESCs is not part of the evaluation process. This oversight may be the reason why programs completed through an ESC rated lower; what is being taught is not aligned to NELP standards and this gap is not known, nor adequately addressed in these programs.

**Research Question 2. Is there a difference in principals' perceived adequacy of training based on how many years they have served as a principal?** The results found no significant difference in principals' perceived adequacy of training based on how many years of experience they have as a principal. Though not statistically significant, total years spent as a principal showed an upward trend in perceived preparedness scores. This may be because participants scored based on their years of experience, with more years equating to more knowledge and experience on the standard, and not necessarily the direct knowledge learned in their preparation program. The ability to uphold NELP Standards did appear to rest on a principal's years of experience. Though contradictory to Boyland et al's (2022) study findings,

this confidence in ability to uphold NELP Standards is expected and supported by research which states more years of experience increases one's self-efficacy (Ikonomopoulos et al., 2016).

**Research Question 3: Is there a difference in principals' perceived adequacy of training based on the Education Service Center (ESC) region in which they currently serve?** The results of this test showed no significant differences in principals' perceived adequacy of training in the first seven NELP Standards based on the ESC region in which they serve. This result may be due in part to Senate Bill 1383, which calls for national experts to assist in the development of the systems for training aspiring principals. These standards must be followed by all accredited programs. No research studies were found in the U.S. that discuss an urban-rural gap in PPPs, though other countries have voiced differences between these locations as a problem in education (Khan et al., 2019; Newbold & Brown, 2015; Zhang et al., 2018).

There was a statistically significant difference regarding NELP Standard 8: Internship based on ESC region. With a possible total summative score of a 54, the West Texas region scored the lowest with a 29.74. When comparing this summative score to the South Texas region, which had the highest score of a 37.06, a significant difference was evident. The West Texas region, comprised of ESC regions 9, 14, 15, 16, 17, 18, and 19, has the lowest number of traditional PPPs offered, with just ten programs. Region 14 does not have any traditional program in the region. The low number of preparation programs, coupled with the geographic spread of the programs, may be why the Internship standard was so low. West Texas has a higher concentration of rural areas compared to the other areas of Texas (Ratcliffe, 2022), and rural areas tend to struggle to meet the preparation needs of educators (Hoover & Erickson, 2015; Robinson et al., 2013), with research sighting the limited resources and lack of contemporary expertise as an issue in meeting the needs of remote communities (Maheady et al., 2016). Rural

regions of Texas were shown to have internship experiences that were less aligned with practice and not as beneficial to participants as compared to other regions of Texas. This result echoes research, which states many graduates of PPPs did not have a complete picture of the principalship upon graduation from their program (Duncan et al., 2011; Slater et al., 2018).

### **Significance**

Based on the findings of the study, the problem of variations in principal preparation programs (PPPs) does not seem to exist in the state of Texas. Variations were not shown to exist between program types, a principal's years of experience, nor the region in which they serve. There was a small, practical significant difference in the internship experience of these programs. These findings add to the limited literature in analyzing PPPs. In addition, Given the alignment to NELP, which highlights best practices, Texas 'programs have shown to be educating and preparing future principals effectively. Texas' alignment with national standards is bridging the gap between theory and best practice. The outcome of these programs should be leaders who are prepared to address the cultural and social changes in schools and support staff and students to achieve academic success for all students.

As discussed in the Significance of the Study section in Chapter 1, many studies on PPPs have used a qualitative approach, with this study adding to the limited number of quantitative studies. In addition, this study analyzed the alignment of the state of Texas 'PPPs to the NELP Standards. To the researcher's knowledge, no study has been completed on the alignment of Texas to national standards. This study adds to the gap of how PPPs are analyzed and studied. This study provides outcomes data from graduates of preparation programs, which is also sparsely covered in research.

### **Implications**

This section will discuss the theoretical and practical implications of this research. The findings of the study will be connected back to the conceptual framework, along with how the findings contribute to this framework. The practical implications will connect to current practices in the field of training aspiring principals and the professional education field in general. This section will conclude with the study's limitations and the implications these limitations could have on the study's findings.

### **Conceptual Implications**

The findings of this study contribute to the NELP conceptual framework by supporting the importance of each standard, specifically Standard 8: Internship. Though each institution develops their own PPP curriculum, all curricula was found to be aligned to the NELP Standards. The findings show participants' programs were adequately aligned with national standards and prepared them for the principalship. The findings did, however, show a need to better align the internship experience with best practices outlined in NELP (Orr & Orphanos, 2011; Reyes-Guerra & Barnett, 2017). For example, the internship can allow aspiring principals to lead data-driven meetings with teachers to enhance student achievement. The findings support the importance of connecting the concepts of the principalship to practice in order to better prepare aspiring leaders for the principalship (NPBEA, 2018). The concepts outlined in NELP were shown to be valuable in preparing aspiring principals for the principalship. The need to provide the knowledge found within the NELP Standards was supported by the perspectives of principals in this study.

### **Practical Implications**

The findings contribute to the current understanding of what components make an effective principal preparation program. Though nationally, variations in preparation programs



have been found (Anderson & Reynolds, 2015; Davis, 2010), Texas was found to be consistent across programs. With the exception of variation in the internship between rural and urban locations, PPPs across the state were overall aligned based on principals' perceived levels of preparation. The practical implication is that institutions should continue in their method of program curriculum alignment with best practices. The structure of preparation programs, however should move beyond knowledge and concepts to continued implementation and meaningful application opportunities for their students through internships.

### **Limitations**

There were two limitations that emerged during the study. The surveys were sent out during the summer break and not during the normal school year. This limitation was reduced by adding an additional week to the survey window in order to increase the response rate. Much of the targeted sample was out on vacation or break during the initial window based on the number of automated emails stating such. By extending the window, the majority of the target sample resumed back work within the extended time. This limitation may impact the practical understanding given the lack of generalizability. The small sample size means the findings of this study are limited to the study and may not be applied to the larger population. Secondly, the experiences of an individual's preparation program may not have been clearly recalled given the time away from the program. It was not evident that participants had a lack of recall of their experiences, though, the extent to which this may have factored into their answers is a limitation of the study.

### **Recommendations**

The following section will discuss recommendations for future research, and future practices in the training of aspiring principals. Recommendations for future research will address

areas of need, and how to address research-based gaps as a result of the findings of this study.

Recommendations for future practice will focus on the requirements and components covered in principal preparation programs, addressing the practice-based gaps found in the study's findings.

### **Recommendations for Future Research**

- *Expand the research across multiple states.* The use of NELP as the conceptual framework lends the study design to be used in any state within the nation. Researching other states can allow for a comparison across states to occur in order to analyze state-to-state alignment to national standards. Specific regions in the nation can also be researched to determine if differences exist in alignment based on region.
- *Build on finding of variation of the internship.* Given the limited number of research on principal preparation programs' inclusion of an internship, this study lends itself to further research into the variation of these programs across the state of Texas. Rural locations have been shown to have the lowest score in perceived adequacy of training. This finding lends itself to future research to better analyze why this difference exists.
- *Examine individual NELP Standards in greater detail.* This study used a mean score and summative score when analyzing the NELP Standards. Greater detail can be included to the components of each standard. This will allow for further exploration into exactly what the components entail and to what extent they are being addressed.
- *Increase the sample size.* Future research can include assistant principals, thus increasing the sample size. Assistant principals tend to be fewer years removed from the program, and their perspective may be more heavily influenced by their program as opposed to their years of experience. Their perspective is valuable to include when examining principal preparation programs.

- *Use Texas' state standards to analyze PPPs.* Future research can use Texas' state standards when analyzing principals' perspective of adequate training received in their preparation program. Future research can compare the state alignment to national standards. This comparison will show both the alignment of state standards to national standards, and also identify any variations in preparation in state standards.

### **Recommendations for Future Practice**

- *Increased collaboration between rural school districts and regional preparation programs.* To address the lower perceived adequacy of preparation in rural areas as it relates to an internship, preparation programs should collaborate more extensively with rural school districts. This collaboration will ensure the internship experience is more practical and aligned to current standards and practices. It will also aid in overcoming the potential of limited resources in rural areas.
- *Explicit and applicable pedagogical approach in leading instruction and learning.* Preparation program faculty should implement forms of authentic learning to bridge the gap between theory and practice with regard to leading instruction and learning initiatives. This explicit instruction should be informed by both NELP standards and the needs of the area. Students should be exposed to a variety of high-quality, technology-rich curricula programs, as well as given the opportunity to demonstrate their ability to implement instructional practices.
- *Evaluate programs' adequacy of preparation in best practices.* Individual programs should collect outcomes data on their graduates. This will help programs identify and address any gaps in adequate preparation. The specific context and needs of a given area can best be addressed using this practice. Through an evaluation of adequacy of

preparation, programs will ensure they are best ensuring the success of future principals in the principalship.

- *Provide students in PPPs with current knowledge of state and national standards.* If they are not already doing so, preparation programs should ensure future principals have a knowledge of state and national standards and provide the knowledge and practice to ensure fulfillment of the standards. Standards are revised to meet the changing educational needs of students. It is important to maintain current information for the success of principal candidates.

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## APPENDIX A: PRINCIPAL PREPARATION SURVEY

### Start of Block: Demographic Questions

The following 14 items will collect information about you and your current school. Carefully read each item and select the best response based on the choices provided. This set of items should take less than 5 minutes to complete.

Q1 Select your biological sex.

- ☐ Male (1)
- ☐ Female (2)

Q2 Select your current age.

Current Age

21 26 31 36 41 46 50 55 60 65 70

Move Slider ()



Q3 Select your highest level of education received.

- ☐ Bachelor's degree (2)
- ☐ Master's degree (4)
- ☐ Doctoral degree (6)

Q4 Select your total years of experience as an educator (including years as a principal).

Total Years as Educator

0 5 10 15 20 25 30 35 40 45 50

Move Slider ()



Q5 Select your years of experience as a principal (NOT including years as an assistant principal or other administrator role).

Years as Principal

0 5 10 15 20 25 30 35 40 45 50

Move Slider ()



Q6 Select the instructional level that best describes your current school.

- ☐ Elementary (1)
- ☐ Middle/junior high (2)
- ☐ High school (3)
- ☐ (P)K-12 (4)
- ☐ Other (5)

Q7 Select your current school's classification (select all that apply).

☐ Public (1)

- ☐ Private (2)
- ☐ Charter (3)
- ☐ Magnet (4)

Q8 Select the education service region (as defined by TEA) for your current school.

▼ Region 1 (1) ... Region 20 (20)

Q9 What is the best description of your current school's geographic location (as defined by NCES)?

- ☐ City (1)
- ☐ Suburban (2)
- ☐ Town (3)
- ☐ Rural (4)

Q10 Select the percentage of students receiving free and reduced-cost meals at your current school.

Percent of F/R Meals

0 10 20 30 40 50 60 70 80 90 100

Move Slider ()



Q11 Select your years of experience in education BEFORE entering a principal preparation program.

Years Before Principal Program

0 5 10 15 20 25 30 35 40 45 50

Move Slider ()



Q12 Select the type of principal preparation program you completed.

- ☐ Fully in-person university-based program (1)
- ☐ Hybrid university-based program (2)
- ☐ Fully online university-based program (3)
- ☐ Alternative certification program through a school district (4)
- ☐ Alternative certification program through a regional education service center. (5)

Q13 Was your principal preparation program completed in the state of Texas?

- ☐ Yes (1)
- ☐ No (2)

Q14 Select the year you completed your principal preparation program.

Program Completion Year

1965 1971 1977 1982 1988 1994 2000 2006 2011 2017 2023

Move Slider ()



## End of Block: Demographic Questions

### Start of Block: Preparation Block

The following 60 items focus on your perceptions about your principal preparation program. Carefully read each item and select the best response based on the choices provided. This set of items should take less than 10 minutes to complete.

I was well prepared by my principal preparation program in my capacity to:

Strongly Agree (1)	Agree (2)	Somewhat Agree (3)	Somewhat Disagree (4)	Disagree (5)	Strongly Disagree (6)
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1. Evaluate a school mission and vision. (1)

2. Lead improvement processes by using implementation practices. (5)

3. Model professional norms. (9)

4. Model ethical behavior in my personal conduct and relationships. (13)

5. Use data to cultivate a supportive and inclusive school culture. (17)



6. Evaluate the equitable, inclusive, and culturally responsive instructional practices among the staff. (21)

7. Evaluate high-quality, technology-rich curricula programs and supports for academic and non-academic student programs. (25)

8. Develop high-quality, equitable academic and non-academic instructional materials and services. (29)

9. Implement formal and informal culturally responsive and accessible assessments that support data-informed instructional improvement, student learning, and student well-being. (33)

10.  
Collaboratively  
engage diverse  
families. (37)

11.  
Communicate  
through written  
means within  
the larger  
contexts when  
advocating for  
the needs of the  
school and  
community.  
(41)

12. Implement  
management,  
communication,  
technology,  
school-level  
governance, and  
operation  
systems that  
support each  
students'  
learning. (45)

13. Reflectively  
evaluate laws,  
rights, policies,  
and regulations  
to promote  
student and staff  
success and  
well-being. (49)

14. Develop and engage staff in a collaborative professional culture designed to promote school improvement. (53)

15. Engage others in professional learning designed to promote reflection, cultural responsiveness, distributed leadership, digital literacy, school improvement, and student success. (57)

I was well prepared by my principal preparation program in my capacity to:

Strongly Agree (1)	Agree (2)	Somewhat Agree (3)	Somewhat Disagree (4)	Disagree (5)	Strongly Disagree (6)
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16. Develop a school mission and vision. (2)

17. Lead improvement processes by using evaluation practices. (6)

18. Evaluate ethical and legal decisions. (10)

19. Cultivate ethical behaviors in others. (14)

20. Advocate for a supportive and inclusive school culture. (18)

21. Evaluate the equitable, inclusive, and culturally responsive behavioral practices among the staff. (22)

22. Develop high-quality, technology-rich curricula programs and supports for academic and non-academic student programs. (26)

23. Implement high-quality, equitable academic and non-academic instructional materials and services. (30)

24.  
Collaboratively  
evaluate a  
school's  
curriculum,  
data systems,  
instruction,  
assessment, and  
technology  
practices in a  
coherent,  
equitable, and  
systematic  
manner. (34)

25.  
Collaboratively  
engage with  
diverse  
community  
members and  
other  
stakeholders for  
the benefit of  
school and  
student  
improvement.  
(38)

26.  
Communicate  
through digital  
means within  
the larger  
contexts when  
advocating for  
the needs of the  
school and  
community.  
(42)

27. Evaluate a data-informed and equitable resourcing plan that supports school improvement and student development. (46)

28. Communicate about laws, rights, policies, and regulations to promote student and staff success and well-being. (50)

29. Develop and engage staff in a collaborative professional culture designed to promote teacher retention. (54)

30. Evaluate systems of supervision, support, and evaluation designed to promote school improvement and student success. (59)

I was well prepared by my principal preparation program in my capacity to:

Strongly Agree (1)	Agree (2)	Somewhat Agree (3)	Somewhat Disagree (4)	Disagree (5)	Strongly Disagree (6)
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31.  
Communicate a  
school mission  
and vision. (3)

32.  
Communicate  
professional  
norms. (7)

33.  
Communicate  
about ethical  
and legal  
decisions. (11)

34. Use data to  
evaluate the  
school's  
inclusive  
culture. (15)

35. Evaluate the  
educational  
resources,  
technologies,  
and  
opportunities  
given to  
students to  
support their  
educational  
success. (19)

36. Cultivate equitable, inclusive, and culturally responsive instructional and behavioral practices among the staff. (23)

37. Implement high-quality, technology rich curricula programs and supports for academic and non-academic student programs. (27)

38. Evaluate formal and informal culturally responsive and accessible assessments that support data-informed instructional improvement, student learning, and student well-being. (30)



39.  
Collaboratively  
develop a  
school's  
curriculum, data  
systems,  
instruction,  
assessment, and  
technology  
practices in a  
coherent,  
equitable and  
systematic  
manner. (35)

40. Cultivate  
relationships  
with diverse  
community  
members and  
other  
stakeholders for  
the benefit of  
school and  
student  
improvement.  
(39)

41. Evaluate the  
management,  
communication,  
technology,  
school-level  
governance, and  
operation  
systems that  
support students'  
learning. (43)

42. Develop a data-informed and equitable resourcing plan that supports school improvement and student development. (47)

43. Implement laws, rights, policies, and regulations to promote student and staff success and well-being. (51)

44. Develop and engage staff in a collaborative professional culture designed to promote the success and well-being of each student and staff member in the school. (55)

45. Develop systems of supervision, support, and evaluation designed to promote school improvement and student success. (59)

I was well prepared by my principal preparation program in my capacity to:

Strongly Agree (1)	Agree (2)	Somewhat Agree (3)	Somewhat Disagree (4)	Disagree (5)	Strongly Disagree (6)
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46. Lead improvement processes by using data. (4)

47. Cultivate professional norms. (8)

48. Advocate for ethical and legal decisions. (12)

49. Use data to design a supportive and inclusive school culture. (16)

50. Advocate for equitable access to educational resources and opportunities that support each student. (20)

51. Advocate for equitable, inclusive, and culturally responsive instructional and behavioral practices among the staff. (24)

52. Evaluate high-quality, equitable academic and non-academic instructional materials and services. (28)

53. Develop formal and informal culturally responsive and accessible assessments that support data-informed instructional improvement, student learning, and student well-being. (32)

54. Collaboratively implement a school's curriculum, data systems, instruction, assessment, and technology practices in a coherent, equitable, and systematic manner. (36)

55. Communicate through oral means within the larger context when advocating for the needs of the school and community. (40)

56. Develop management, communication, technology, school-level governance, and operation systems that support each students' learning. (44)

57. Advocate for a data-informed and equitable resourcing plan that supports school improvement and student development. (48)

58.  
Collaboratively  
develop the  
school's  
professional  
capacity through  
engagement in  
recruiting,  
selecting, and  
hiring staff. (52)

59. Engage in  
professional  
learning  
designed to  
promote  
reflection,  
cultural  
responsiveness,  
distributed  
leadership,  
digital literacy,  
school  
improvement,  
and student  
success. (56)

60. Implement  
systems of  
supervision,  
support, and  
evaluation  
designed to  
promote school  
improvement  
and student  
success. (60)

**End of Block: Preparation Block**

**Start of Block: Internship**

The following items are specific to the internship (or practicum) completed through your preparation program. Carefully read each item and select the best response based on the choices provided. This set of items should take less than 5 minutes to complete.

I had to complete field experiences (internship, practicum, etc.) as part of my principal preparation program's requirements.

☐ Yes (1)

☐ No (2)

*Display This Question:*

*If I had to complete field experiences (internship, practicum, etc.) as part of my principal prepared... = Yes*

The internship I performed as part of my coursework had an effect on my preparation for principalship.

☐ Strongly agree (1)

☐ Agree (2)

☐ Somewhat agree (3)

☐ Somewhat disagree (4)

☐ Disagree (5)

☐ Strongly disagree (6)

*Display This Question:*

*If I had to complete field experiences (internship, practicum, etc.) as part of my principal prepared... = Yes*

I was provided a mentor to support me during my internship.

☐ Yes (1)

☐ No (2)

*Display This Question:*

*If I had to complete field experiences (internship, practicum, etc.) as part of my principal prepared... = Yes*

My field mentor was chosen collaboratively by myself, the school/district representative, and the program faculty.

- ☐ Strongly agree (1)
- ☐ Agree (2)
- ☐ Somewhat agree (3)
- ☐ Somewhat disagree (4)
- ☐ Disagree (5)
- ☐ Strongly disagree (6)

*Display This Question:*

*If I had to complete field experiences (internship, practicum, etc.) as part of my principal prepared... = Yes*

How long (in months) did your internship last?

Internship Months

0 2 5 7 10 12 14 17 19 22 24

Move Slider ()



*Display This Question:*

*If I had to complete field experiences (internship, practicum, etc.) as part of my principal prepared... = Yes*

What was the average amount of time (in hours) you spent per week on internship-specific activities?

Hours per Week



0 4 8 12 16 20 24 28 32 36 40

Move Slider ( )



*Display This Question:*

*If I had to complete field experiences (internship, practicum, etc.) as part of my principal prepared... = Yes*

The field experiences I performed during my internship had a positive impact on my preparation for principalship.

- ☐ Strongly agree (1)
- ☐ Agree (2)
- ☐ Somewhat agree (3)
- ☐ Somewhat disagree (4)
- ☐ Disagree (5)
- ☐ Strongly disagree (6)

*Display This Question:*

*If I had to complete field experiences (internship, practicum, etc.) as part of my principal prepared... = Yes*

The field experiences I performed during my internship had a negative impact on my preparation for principalship.

- ☐ Strongly agree (1)
- ☐ Agree (2)
- ☐ Somewhat agree (3)
- ☐ Somewhat disagree (4)

☐ Disagree (5)

☐ Strongly disagree (6)

*Display This Question:*

*If I had to complete field experiences (internship, practicum, etc.) as part of my principal prepared... = Yes*

The following specific internship-specific field experiences prepared me the most for the principalship:

Strongly Agree (1)	Agree (2)	Somewhat Agree (3)	Somewhat Disagree (4)	Disagree (5)	Strongly Disagree (6)	N/A (7)
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Completed an inventory of extra-curricular activities and determined if opportunities for participation are available to all students. (1)

Administered, analyzed, and shared the results of a student satisfaction survey with appropriate groups. (2)

Led a data-driven faculty meeting discussion that supports change that will enhance student achievement. (3)

Led in the development of a school website or listserv discussion group devoted to sharing best practices among the faculty on communicating with the community. (4)

Developed and presented a school improvement plan. (5)

Participated in an evaluation of ethics-based decisions made within the school. (6)

Led a faculty  
presentation on  
the steps in  
developing a  
professional  
growth plan.  
(8)

*Display This Question:*

*If I had to complete field experiences (internship, practicum, etc.) as part of my principal  
preparation... = No*

My principal preparation program would have better prepared me to be a principal if it had  
included field experiences.

- ☐ Strongly agree (1)
- ☐ Agree (2)
- ☐ Somewhat agree (3)
- ☐ Somewhat disagree (4)
- ☐ Disagree (5)
- ☐ Strongly disagree (6)

**End of Block: Internship**

## APPENDIX B: IRB APPROVAL LETTER



**Date:** June 29, 2023  
**To:** Christopher Benedetti PhD  
**CC:** Amanda Covarrubias  
**From:** Office of Research Compliance  
**Subject:** Exempt Determination

Dear Dr. Benedetti,

On 06/29/2023, the Texas A&M University Corpus Christi IRB Institutional Review Board reviewed the following submission:

<b>Title of Study:</b>	Perceptions of Principals regarding their Principal Preparation Programs
<b>Principal Investigator:</b>	Christopher Benedetti
<b>IRB Number:</b>	TAMU-CC-IRB-2023-0840
<b>Submission Outcome:</b>	Exempt Determination
<b>Approval Date:</b>	06/29/2023

Texas A&M University Corpus Christi IRB Institutional Review Board has reviewed the above-referenced submission and has determined the project is exempt. This submission was approved by the review process in accordance with the policies and procedures of the Human Research Protection Program.

**Therefore, this project has been determined to be exempt under the Exempt Category 2:** Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met: i. The information obtained is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained, directly or through identifiers linked to the subjects; ii. Any disclosure of the human subjects' responses outside the research would not reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, educational advancement, or reputation; or iii. The information obtained is recorded by the investigator in such a manner that the identity of the human subjects



can readily be ascertained, directly or through identifiers linked to the subjects, and an IRB conducts a limited IRB review to make the determination required by .111(a)(7).

**You may proceed with this project.**

This approval corresponds with the versions of the application and attachments in the electronic system most recently approved as of the date of this letter.

**A Reminder of Investigator Responsibilities:** As principal investigator, you must ensure:

1. **Informed Consent:** Ensure informed consent processes are followed and information presented enables individuals to voluntarily decide whether to participate in research.
2. **Amendments:** This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. **Any planned changes require an amendment** to be submitted to the IRB to ensure that the research continues to meet the criteria for exemption. The Amendment must be approved before being implemented.
3. **Completion Report:** Upon completion of the research project (including data analysis and final written papers), a **Completion Report must be submitted.**
4. **Records Retention:** All research-related records must be retained for three (3) years beyond the completion date of the study in a secure location. At a minimum, these documents include the research protocol, all questionnaires, survey instruments, interview questions and/or data collection instruments associated with this research protocol, recruiting or advertising materials, any consent forms or information sheets given to participants, all correspondence to or from the IRB or, and any other pertinent documents.
5. **Adverse Events:** Adverse events must be reported to the IRB immediately.
6. **Post-approval monitoring:** Requested materials for post-approval monitoring must be provided by the dates requested.

If you have any questions or concerns please contact us at [irb@tamucc.edu](mailto:irb@tamucc.edu).

Sincerely,

Michael Sollitto, PhD  
IRB Chair