

Louisiana Tech University

## Louisiana Tech Digital Commons

---

Doctoral Dissertations

Graduate School

---

Summer 8-2021

### **Leadership Aspirations of Preservice Teachers in Louisiana: Does Certification Pathway Matter?**

Anthony Thorn LaCaze

Follow this and additional works at: <https://digitalcommons.latech.edu/dissertations>

---

**LEADERSHIP ASPIRATIONS OF PRESERVICE TEACHERS  
IN LOUISIANA: DOES CERTIFICATION  
PATHWAY MATTER?**

by

Anthony Thorn LaCaze, B.A., M. A.

A Dissertation Presented in Partial Fulfillment  
of the Requirements of the Degree  
Doctor of Education

COLLEGE OF EDUCATION  
LOUISIANA TECH UNIVERSITY

August 2021

LOUISIANA TECH UNIVERSITY

THE GRADUATE SCHOOL

June 9, 2021

Date of dissertation defense

We hereby recommend that the dissertation prepared by

Anthony Thorn LaCaze, B.A., M.A.

entitled Leadership Aspirations of Preservice Teachers in Louisiana: Does  
Certification Pathway Matter?

be accepted in partial fulfillment of the requirements for the Degree of

Doctor of Education, Higher Education Administration Concentration



Dustin Hebert  
Supervisor of Dissertation Research



Dustin Hebert  
Head of Curriculum, Instruction, and Leadership

**Doctoral Committee Members:**

Lorraine Jacques  
Joanne Hood  
Patsy Hughey

**Approved:**



Don Schillinger  
Dean, College of Education

**Approved:**



B. Ramu Ramachandran  
Dean of the Graduate School

## **ABSTRACT**

The purpose of this study was to examine dispositions of teacher candidates, explore differences in leadership aspirations between traditional and alternative certification groups, and develop an unbiased predictive model for identifying future education leaders. Literature suggests that dispositions can be assessed, taught, and developed, but little is known about the link between the dispositions of teacher candidates and aspirations to seek leadership positions. Fourteen dispositions were identified through a Delphi method to correlate with educational leadership standards. They were then combined through factor analysis to develop four leadership constructs: collaborative, professional, inclusive, and modernistic.

This study found that an existing disposition assessment can be used to predict future education leaders and identified a predictive equation for discerning potential leaders. At the time of program completion, alternative certification candidates who aspire to enter leadership positions self-reported their dispositions significantly higher than their traditional counterparts. However, there were no significant differences found between pathways for candidates who do not aspire to enter leadership positions.

The relationship between leadership aspiration and the leadership dispositions of candidates is also of significance. Participants who do not aspire to leadership are likely to report higher scores in the inclusive construct, but the opposite was found for the modernistic construct.

## **APPROVAL FOR SCHOLARLY DISSEMINATION**

The author grants to the Prescott Memorial Library of Louisiana Tech University the right to reproduce, by appropriate methods, upon request, any or all portions of this Dissertation. It is understood that “proper request” consists of the agreement, on the part of the requesting party, that said reproduction is for his personal use and that subsequent reproduction will not occur without written approval of the author of this Dissertation. Further, any portions of the Dissertation used in books, papers, and other works must be appropriately referenced to this Dissertation.

Finally, the author of this Dissertation reserves the right to publish freely, in the literature, at any time, any or all portions of this Dissertation.

Author \_\_\_\_\_

Date \_\_\_\_\_

## **DEDICATION**

This work is dedicated in loving memory of my father, Numa “El” LaCaze, who did not graduate from high school but was the smartest man I ever knew. I wish you could have been here to see me complete this program. I miss your guiding voice and silly dad jokes more and more each day. And, to my mother, Nell, who offered daily encouragement; to my beautiful wife, Danna, who never gave up on me, and to my sons, Jameson and Jaxon, who constantly remind me of what is important in life. I will always make time for tire swings and family fun night.

## **ACKNOWLEDGMENTS**

I would like to thank the Louisiana Tech University College of Education for their collective guidance and instruction. A special thanks to my committee chair, Dr. Dustin Hebert, for stepping in as advisor, and to Dr. Lorraine “Lori” Jacques for answering my countless statistics questions. This work would have likely gone unfinished without both of your educational support.

## TABLE OF CONTENTS

ABSTRACT.....	iii
APPROVAL FOR SCHOLARLY DISSEMINATION .....	iv
DEDICATION .....	v
ACKNOWLEDGMENTS .....	vi
LIST OF FIGURES .....	x
LIST OF TABLES .....	xi
CHAPTER 1 INTRODUCTION .....	1
1.1    Background of the Problem .....	2
1.1.1    Assumptions of the Study .....	6
1.2    Statement of the Research Problem .....	7
1.3    Significance of the Study .....	7
1.4    Presentation of Methods .....	8
1.5    Research Questions and Hypotheses .....	9
1.6    Definition of Key Concepts .....	10
CHAPTER 2 BACKGROUND .....	13
2.1    Theoretical Framework.....	14
2.2    Literature Review .....	17
2.2.1    Defining Dispositions .....	18
2.2.2    Assessing Dispositions.....	21
2.2.3    Teaching Dispositions.....	23
2.2.4    Dispositions in Leadership Theory .....	25



2.2.5	Dispositions in Educational Leadership.....	29
2.2.6	Traditional vs. Alternative Certification.....	35
2.3	Synthesis.....	36
2.3.1	Critique of Previous Research.....	37
2.3.2	Review of Methodological Literature.....	37
2.3.3	Summary.....	38
CHAPTER 3 METHODS.....		39
3.1	Introduction.....	39
3.2	Research Methods.....	41
3.3	Subjects.....	42
3.4	Procedures.....	42
3.5	Instruments.....	43
3.6	Role of the Researcher.....	44
3.7	Delphi Study.....	44
3.8	Data Collection and Analysis.....	45
CHAPTER 4 RESULTS.....		48
4.1	Introduction.....	48
4.2	Research Instrument Response.....	48
4.2.1	Demographics.....	49
4.3	Delphi Study.....	53
4.4	Factor Analysis.....	55
4.4.1	Identifying Primary Components.....	57
4.4.2	Naming Primary Components.....	57
4.4.3	Internal Reliability.....	59
4.4.4	Measures of Variance.....	60

4.5	Findings .....	60
CHAPTER 5 DISCUSSION.....		66
5.1	Leadership Instrument Validation .....	<b>Error! Bookmark not defined.</b>
5.2	The Factorial Analysis .....	67
5.3	Research Question 1 .....	68
5.4	Research Question 2 .....	69
5.5	Research Question 3 .....	71
5.6	Implications .....	72
5.6.1	The Importance of Consistency .....	72
5.6.2	The Importance of Incorporating Modern Practices.....	73
5.7	Delimitations and Limitations .....	74
5.7.1	Geography.....	75
5.7.2	Time .....	75
5.7.3	Gender.....	76
5.7.4	Ethnicity.....	76
5.7.5	Age Group.....	76
5.8	Recommendation for Future Research .....	77
5.9	Conclusion .....	78
REFERENCES .....		79
APPENDIX A	Delphi Pairing of Dispositions and Leadership Standards .....	93
APPENDIX B	Survey Instrument.....	96
APPENDIX C	Human Use Approval Letter.....	102

## LIST OF FIGURES

Figure 4.1: Screeplot for Factorial Analysis. ....	56
--	----

## LIST OF TABLES

Table 4.1: Candidate Demographics by Certification Pathway .....	50
Table 4.2: Area/Level of Certification by Certification Pathway .....	51
Table 4.3: Aspirations for Leadership by Certification Pathway .....	52
Table 4.4: Time Period of Leadership Aspirations by Certification Pathway .....	53
Table 4.5: Delphi Descriptive Statistics for Leadership Pairings .....	55
Table 4.6: Eigenvalues and Cumulative Percentages of Components.....	56
Table 4.7: Percent of Variance for the Four Primary Components .....	57
Table 4.8: Grouped Factors and Correlations .....	58
Table A.1: Delphi Pairing of Dispositions and Leadership Program Standards.....	94

# CHAPTER 1

## INTRODUCTION

The focus on improving education must turn to teacher preparation and the way future educators see and evaluate their own abilities and potential. Characterized by a high turnover rate (Carver-Thomas & Darling-Hammond, 2017; Cochran-Smith et al., 2012; Ingersoll, 2001), the teaching profession is struggling to meet demand. Two-thirds of teachers leave for reasons other than retirement – citing, among other reasons, dissatisfactions with the teaching career, inadequate pre-service training, and lack of opportunities for advancement (Carver-Thomas & Darling-Hammond, 2017; Carter, 2021). Moreover, Sutchter et al. (2019) later found that nearly every state in the U.S. reported teacher shortages. Effective school reform is directly linked to a district’s ability to ensure that “well-prepared, skilled teachers... fill classrooms in schools designed to support high quality teaching and learning” (Berry, 2011, p. 28) while also presenting advancement opportunities to potential new leaders.

This study was considered through the theoretical lens of Bandura’s social cognitive theory and the construct of self-efficacy (Bandura, 1977). Initially described in his 1977 article, “Self-efficacy: Toward a unifying theory of behavioral change,” Bandura (1997) later defined perceived self-efficacy as “beliefs in one’s capabilities to organize and execute the courses of action required to produce given attainments” (p. 3). Bandura et al. (1980) claimed that an individual’s appraisal of his/her own competencies

directly impacted the likelihood of successfully completing tasks and persevering in the face of difficult decisions.

Understanding how preservice teachers think of themselves, internalize their abilities, and develop new skills to meet professional demands reflect the two expectancies of Bandura's theory – self-efficacy and outcome expectations. Teacher motivation and self-efficacy are strong predictors of job satisfaction and intention of staying in the profession (Carter, 2021; Klassen & Chiu, 2010; Skaalvik & Skaalvik, 2010). Carter (2021) found through in-depth interviews with veteran teachers that there is an inverse correlation between self-efficacy and teacher turnover. With most educational leaders receiving certification as teachers (Department for Professional Employees [DPE], 2019), self-efficacy training for teacher candidates could not only improve teachers' abilities but may also improve retention for educators in general and cultivate diversity in education leadership. "The development of leadership capacity for school administrators begins with self-knowledge" (Green et al., 2011, p. 9).

### **1.1 Background of the Problem**

During the current rise in teacher turnover and attrition, a growing number of students who are interested in teaching are seeking certification through alternative pathways. Ingersoll et al. (2012) reported that more than 40% of new teachers entered the profession through nontraditional or alternative routes. In 2019, about 25% of all teacher candidates, nationally, were enrolled in an alternative certification program (Yin & Partelow, 2020). Alternative certification programs both within institutions of higher education (IHE) and out are widespread and varied with non-IHE programs existing in 32 states and Washington, D.C., Baines (2010) found that some alternative certification

programs are traditional programs under a different name while others have very few admission and program requirements. According to the U.S. Department of Education (USDOE) (2020), there are 28 approved alternative certification programs (20 IHE, 8 non-IHE) in Louisiana and 19 traditional certification programs. In 2019, 45.19% of teacher candidates in Louisiana were enrolled in an alternative certification program, an increase of 10.4% from the year prior (USDOE, 2020).

Carver-Thomas and Darling-Hammond (2017) found that total turnover rates are highest in the South (16.7%) with the greatest increase in turnover being exhibited by alternatively certified teachers (150%) serving in Title I schools with the largest concentrations of students of color. Carver-Thomas and Darling-Hammond indicate that retaining alternatively certified teachers is a challenge, mostly due to job placement, fewer preparation courses, and less clinical experience. They found that southern teachers who enter the profession through alternative certification pathways are 25% more likely to leave their schools and the profession, even after controlling for their students, schools, and teaching conditions.

Conversely, Haj-Broussard et al. (2016) found that, nationally, 83% of alternatively certified teachers continued teaching for longer than 3 years. Only 60% of traditionally certified teachers teach longer than 3 years, with 40% leaving the teaching profession within the first 3 years. Yet, studies have found that there is no significant difference in terms of quality between traditionally and alternatively certified teachers (Bowe et al., 2011; Constantine et al., 2009; Decker et al., 2005; Shuls & Trivitt, 2015; Uriegas et al., 2014; Yao & Williams, 2010).

Turnover in educational leadership is also a concern since research demonstrates that principals exert a significant influence on student performance (Brown, 2016; Dhuey & Smith, 2014; Seashore Louis et al., 2010; Supovitz et al., 2010). Nationally, 20% of public school principals in the U.S. leave their positions each year, on average following a downturn in student achievement (Miller, 2013). Using Texas data, Fuller and Young (2009) found that, heavily influenced by placement in low-achievement, high-poverty schools, less than 30% of newly hired principals stay for five years or more with female principals leaving at higher rates than men. Moreover, Maina and Davila Valencia (2019) found that high poverty schools with low school climate scores may have three or more principals over a nine-year period.

An awareness of dispositions can help develop an understanding of the complex career decisions of educators. Though disposition research spiked after No Child Left Behind introduced them as an area of importance in teacher education, the intensity with which dispositions are evaluated seems to be waning (Thornton, 2013). Despite widespread agreement that dispositions are important to instructional success, identifying and defining professional dispositions have proven to be difficult for researchers and teacher educators alike (Karges-Bone & Griffin, 2009; Schussler et al., 2010). Assessment criteria is also inconsistent. While most assessments of teacher candidates are conducted during clinical residency (Ignico & Gammon, 2010; Lindahl, 2009; Masunaga & Lewis, 2011; Schussler et al., 2010), more investigation into dispositions at the close of the clinical residency and as novice teachers could give way to further understanding key teacher dispositions (Thornton 2013; Tschannen-Moran & Hoy, 2001). “If teacher preparation has standards for and works to cultivate specific dispositions, it is important



to investigate what happens to these dispositions once novice teachers enter the real world of the classroom” (Thornton, 2013, p. 1).

It is important for good educators to place their biases and assumptions aside. Faulty assumptions about teaching can keep teachers from acting in ways that lead to intended purposes. The ability to unpack one’s assumptions (Schussler et al., 2010) will lead to a higher and better understanding of self and a readiness to develop the dispositions necessary of effective teachers. When given autonomy in the classroom, educators chose instruction that is reinforced by their beliefs as a teacher (Griffith & Groulx, 2014). Questioning the curriculum and determining the best methods for student instruction are traits indicative of having a high teacher self-efficacy.

While pretest/posttest self-assessments were found to be most common form of disposition research (Lindhal, 2009), an individual’s self-reflection leads to varying results longitudinally (Brookhart & Freeman, 1992; Green et. al, 2011; Ignico & Gammon, 2010). An individual’s self-efficacy would be a factor in how he/she answers questions related to their abilities, dispositions, and experiences. Masunaga and Lewis (2011) found that self-efficacy scores accurately predicted achievement. Candidates with low self-efficacy in teaching may not have the confidence necessary to effectively communicate the course material in ways that students will understand. Those who successfully completed student teaching self-rated their teacher dispositions significantly higher than those who faced challenges with self-confidence during student teaching.

Brookhart and Freeman (1992) found evidence that while the confidence levels of teacher candidates were generally very high for entering candidates, they decreased over

time. Candidates reported being very confident and self-assured in the teaching profession, but they also reported being concerned about how they will perform as teachers. Ignico and Gammon (2010) confirmed that candidates began teacher training with a higher perceived self-efficacy, noting a significant decrease in candidates' self-assessment scores as they progressed through teacher candidacy. The decline in self-ratings may be attributed to the development of what Ignico and Gammon referred to as an increasingly clear and more realistic self-portrait. As candidates developed a greater sense of self-awareness, they scored themselves more critically at the end of their candidacy.

The literature indicated that a longitudinal study may produce more definitive results (Brouwers & Tomic, 2000; Cochran-Smith et al., 2012; Merriam, 2009; Stake 1995) when considering self-reflections as well as incorporating aspects of observed behavior (Ignico & Gammon, 2010; Thornton 2013). Self-awareness and self-efficacy have been identified as important qualities of teachers (Klassen & Chiu, 2010; Schussler et al., 2010; Skaalvik & Skaalvik, 2010) as well as educational leaders (Green et al., 2011; Lindahl, 2009; Martin, 2009; Schulte & Kowal, 2005).

### **1.1.1 Assumptions of the Study**

The following assumptions were made in this study:

1. Participants answered the Teacher Disposition Supplemental Survey (TDSS) and the Professional Dispositions and Characteristics Scale (PDCS) honestly and openly.
2. Participants pursued teacher certification in order to work in education.
3. Participants chose to participate in the study voluntarily.

4. Traditional certification candidates and alternative certification candidates were equally as prepared to enter full-time independent teaching by their teacher education program.
5. Participants adequately represent the typical population of the university's teacher education programs.

## **1.2 Statement of the Research Problem**

A review of the literature shows considerable investigation into the dispositions of potential and practicing teachers. Even general leadership dispositions are presented but less is known about identifying leadership dispositions within teacher candidates. An understanding of how leadership dispositions and competencies of educational administrators can be identified during teacher candidacy can be important factors in recognizing and developing future impactful leaders. The overarching research question is: PDCS be used to identify future education leaders?

## **1.3 Significance of the Study**

Using adequate disposition research to identify future educational leaders can help teacher education programs begin to cultivate leadership abilities as early as teacher candidacy. For individuals who aspire to positions of leadership, this could be the motivation necessary to increase self-efficacy and stay in the field of education for a longer period of time while demonstrating possibilities of career advancement. These factors are known to increase job satisfaction and desire to remain in education (Carver-Thomas & Darling-Hammond 2017; Klassen & Chiu, 2010; Skaalvik & Skaalvik, 2010). Additionally, using dispositions to help guide the selection process of future educational leaders will help urge teacher educators, certification programs, selection committees,

and hiring boards to consider unbiased factors outside of the traditional hiring practices. The use of disposition research may create a more equitable selection process for educational leaders.

#### **1.4 Presentation of Methods**

The purpose of this nonexperimental study was to examine the current dispositions of preservice teachers, investigate possible correlations between dispositions and leadership aspirations, and develop a predictive model for identifying future leaders. The study focused on investigating self-reported dispositions and leadership aspirations of candidates from different certification pathways in the same state.

The survey instrument used in this study consists of two parts. The TDSS is a researcher-developed supplement that asks participants to self-report demographic information, professional data, and career aspirations. Variables collected on the TDSS will be: (a) age range, (b) gender, (c) race, (d) school district, (e) school size, (f) school level, (g) school type, (f) teaching level, and (g) career aspirations. It will precede the PDCS in the survey instrument. The PDCS is a 42-item survey that measures the professional dispositions of teacher candidates, corresponds with Interstate New Teacher Assessment and Support Consortium (InTASC) standards (Council of Chief State School Officers [CCSSO], 2013), and satisfies Council for the Accreditation of Educator Preparation (CAEP)'s accreditation requirements (CAEP, 2019).

Participants of the study were individuals who were completing preservice teaching requirements, receiving teaching certification from a University of Louisiana System institution in 2019 or 2020, and were preparing to begin the first year of independent teaching. This purposeful sample was chosen in order to capture the current

dispositions of preservice teachers from multiple institutions in Louisiana. Two groups were represented: traditionally certified teachers and alternatively certified teachers. Although participants received teaching certifications from the State of Louisiana, they may represent a national range.

After the study was completed, an exploratory factor analysis was performed to identify correlated factors within leadership domain dispositions. These new constructs were investigated further. Then, a binary logistic regression was performed to identify any variables that may influence leadership aspiration.

Self-reflections were used in this study. Using a consistent self-reported instrument and appropriate data analysis provided an in-depth look at the current state of perceived self-efficacy of teacher candidates. It also evaluated the behavioral trends of future education leaders and offer adequate consideration of disposition measurement reliability.

If a teacher disposition instrument can be tied to leadership traits and career aspirations, teacher education programs can actively seek out future education leaders. Leadership abilities and skills, then, can be cultivated as early as teacher candidacy. This additional training could improve the leadership capacity of future administrators which may help improve the effectiveness of future educational leaders and slow teacher burn out.

## **1.5 Research Questions and Hypotheses**

The overarching research questions is: Can the PDCS be used to identify future education leaders? The specific research questions of this study were:

Research Question 1: Is there a significant difference between the self-reported dispositions of traditional certification preservice teachers and alternative certification preservice teachers?

- (H<sub>0</sub>) There is no significant difference between the self-reported dispositions of traditional certification preservice teachers and alternative certification preservice teachers.

Research Question 2: What relationship, if any, is there between the fourteen leadership domain dispositions that form the abridged research instrument and the leadership aspirations of teacher candidates?

- (H<sub>0</sub>) There is no significant relationship between the dispositions of preservice teachers and their leadership aspirations.

Research Question 3: Can age, gender, race, certification pathway, certification area, or the leadership dispositions of the collaborative, professional, inclusive, or modernistic constructs influence the leadership aspirations of preservice teachers?

- (H<sub>0</sub>) There are no factors that significantly influence the leadership aspirations of preservice teachers. The regression coefficient is equal to 0.

## 1.6 Definition of Key Concepts

*Alternative Certification Program:* A program for which degree-holding individuals receive certification to teach, often in a shorter period of time than a traditional certification program.

*Alternative Certification Candidate:* A student who is engaged in an alternative route to teaching whether at an institution of higher education (IHE) or non-IHE program.

*Alternatively Certified Teacher:* Any teacher who completed a certification program through non-traditional methods and has received certification to teach outside the traditional four-year approach of graduating from an accredited college or university with a degree in education.

*Certified Teacher:* A teacher who has received approval by and certification from the state's Department of Education after completing all necessary requirements of a traditional or alternative teacher education program.

*Dispositions:* Habits of professional action and moral commitments that underlie an educator's performance (CCSSO, 2013).

*Institution of Higher Education (IHE):* An accredited, degree-granting, four-year institution that is approved by governing agencies to provide teacher education.

*Private School:* Any school in the U.S. in which tuition is charged for educational services. Private schools are typically free from zoning requirements and may or may not have specific admission criteria.

*Public School:* Any school in the U.S. supported by public funds that provides free education to children of a community, district, or state.

*Traditional Certified Program:* A four-year college or university undergraduate program that is designed to prepare students to become teachers.

*Traditional Certification Candidate:* A student who is engaged in a four-year education program of teacher preparation at an IHE.

*Traditionally Certified Teacher:* Any teacher who has received certification as an undergraduate after completing a traditional certification program.



## **CHAPTER 2**

### **BACKGROUND**

No Child Left Behind introduced dispositions as an area of importance in teacher education. The standards set forth by the law stated that a teacher candidate's dispositions should be measured, and deficient areas should be taught. In example, the new standards required that each candidate believe that every child has the ability to succeed. Accrediting agencies began to require the assessment of dispositions in 2002, and this began a focused effort in teacher candidate disposition research. Once in the classroom, teachers were expected to perform at increasingly higher levels under a high-stakes accountability system. No Child Left Behind was amended and extended by the Every Student Succeeds Act, which was signed into law in 2015.

A review of the literature shows considerable investigation into the dispositions of potential and practicing teachers, principals, and superintendents. Even general leadership dispositions are presented, but less is known about the leadership dispositions of teacher candidates. An understanding of desired dispositions and competencies of educational administrators is important in developing impactful leaders. The overall strength in this review is that general conclusions of the studies have thematic consistency, though the individual methodology and results differ from study to study. Alternatively, the major weakness in the studies presented by the literature review is that there is little consistency in the definition and assessment of dispositions.

The literature indicates that disposition assessment and research is complex. However, a trend in the growth and maturity of education leaders has emerged. The literature demonstrates that dispositions can be measured (Ignico & Gammon, 2010; Thornton, 2006; Thornton, 2013) and are malleable (Cummins & Asempapa, 2013; Garmon, 2004; Green et al., 2011). Candidates reflect the same dispositions at the time of graduation as they do during the first five years of teaching (Thornton, 2013). Important teacher outcomes such as job satisfaction and intent to stay in the profession are positively related to an in-service teacher's self-efficacy (Brouwers & Tomic, 2000; Skaalvik & Skaalvik, 2010). The majority of principals leading K-12 public schools today began their education careers by teaching in the classroom (DPE, 2019; Fahrni, 2002; Gates, 2004). The same was found for traditional superintendents (Jarrett et al., 2018).

If researchers can settle on the common dispositions necessary for educational leadership, the right mix of leadership development, disposition training, and assessment may unbiasedly identify potential education leaders as early as teacher candidacy. Building the self-efficacy of future educational leaders in teacher preparation programs may improve the selection process while ensuring equitable practices. This study will examine the differences in leadership dispositions of traditional certification candidates and alternative certification candidates as well as the factors that influence leadership aspirations.

## **2.1 Theoretical Framework**

For the purposes of this study, disposition assessment will be considered through the theoretical lens of self-efficacy - an individual's confidence in his/her current

abilities, the belief that his/her abilities can grow with effort, and the application of ability to performance (Bandura, 1997). According to Bandura et al. (1980), an individual's appraisal of his/her own competencies directly impact the likelihood of successfully completing tasks and persevering in the face of difficult decisions. Based on this theory, preservice teachers' self-evaluations of their current dispositions, abilities to organize their actions to address student achievement, and their motivation to develop new skills to meet professional demands reflect the two key expectancies of Bandura's (1977) theory: (a) self-efficacy and (b) outcome expectations.

Understanding how educators think of themselves and how that compares to successful professionals can help teacher education programs create opportunities to improve candidate self-efficacy along with improving skill set. Kang (2005) indicated that self-efficacy is not context free; it is highly dependent on specific tasks, demands on the individual, and other circumstances. With most educational leaders receiving training as teachers (DPE, 2019), disposition training for teacher candidates will not only improve the self-efficacy of teachers but may also improve that of future leaders as well.

In self-assessments, self-efficacy would be a factor in how teacher candidates answer questions related to their abilities, dispositions, and experiences. A candidate with low self-efficacy in teaching may not have confidence that he/she can effectively perform in the classroom. Masunaga and Lewis (2011) found that self-efficacy scores accurately predicted achievement. Candidates who successfully completed student teaching self-rated their teacher dispositions significantly higher than those who faced challenges during student teaching.

However, Brookhart and Freeman (1992) found evidence that while the confidence levels of teacher candidates were generally very high for entering candidates, they decreased over time. Candidates reported being very confident and self-assured in the teaching profession, but they also reported being concerned about how they will perform as teachers. Ignico and Gammon (2010) also found that candidates began teacher training with a higher perceived self-efficacy, noting a significant decrease in candidates' self-assessment scores as they progressed through teacher candidacy. The decline in self-ratings may be attributed to the development of what Ignico and Gammon (2010) referred to as an increasingly clear and more realistic self-portrait. As candidates developed a greater sense of self-awareness, they scored themselves more critically on self-assessments.

Thornton (2013) found that the dispositions preservice teachers demonstrate at the time of graduation remained relatively constant through the first 5 years of teaching. The ability to unpack one's assumptions (Schussler et al., 2010) will lead to a higher and better understanding of self and a readiness to develop the dispositions needed to be an effective teacher. When given autonomy in the classroom, they chose instruction that is reinforced by their beliefs as teachers (Griffith & Groulx, 2014). Questioning the curriculum and determining the best methods for student instruction are traits indicative of having a high teacher self-efficacy. Self-awareness and self-efficacy have been designated essential qualities of educational leaders (Green et al., 2011; Lindahl, 2009; Martin, 2009; Schulte & Kowal, 2005). Teaching these qualities during teacher preparation will create young teachers with the critical thinking skills necessary for the profession as they mature into future administrators.

## 2.2 Literature Review

The National Council for Accreditation of Teacher Education (NCATE, 2008), now CAEP, requires that teacher education programs articulate and systematically assess candidate dispositions for the purposes of accreditation. The mandate has required that teacher education programs assess both the possession and development of the professional dispositions needed to positively impact student learning. Specifically, CAEP standards dictate that institutions assess the dispositions of fairness and the belief that all students can learn. Many researchers have credited NCATE with placing national importance on the measurement of dispositions (Bradley & Jurchan, 2013; Cummins & Asempapa, 2013; Ignico & Gammon, 2010; Schussler et al., 2010; Thompson, 2013). Likewise, the Interstate New Teacher Assessment and Support Consortium (InTASC), an agency that collaborates with individual state teacher licensing, has also put an emphasis on the assessment of dispositions by education departments (Thompson, 2013).

However, definitions for dispositions vary considerably. Trends in the literature indicate that disposition research is complicated, even controversial due to the difficulty in defining dispositions (Cummins & Asempapa, 2013; Griffith & Groulx, 2014; Thompson, 2013) and in the considerable variability in assessment methodology (Bradley & Jurchan, 2013; Brookhart & Freeman, 1992; Ignico & Gammon, 2010). In teacher preparation, it is important to first consider how to determine which dispositions are appropriate dispositions (Cummins & Asempapa, 2013; Schussler et al., 2010; Thornton, 2006), if those desired dispositions can be taught (Bradley & Jurchan, 2013; Ignico & Gammon, 2010; Thompson, 2013; Thornton, 2013), and who should conduct the assessment (Ignico & Gammon, 2010; Welch et al., 2010).

The maturity and experience of individuals also play important roles. Much of the literature is focused on assessing teacher candidate dispositions during student teaching (Ignico & Gammon, 2010; Masunaga & Lewis, 2011; Schussler et al., 2010); however, testing dispositions earlier in the candidacy may yield more accurate information to use in educating candidates (Cummins & Asempapa, 2013; Ignico & Gammon, 2010). While studies suggest that dispositions are malleable during teacher candidacy (Cummins & Asempapa, 2013; Ignico & Gammon, 2010), Thornton (2013) found that young teachers' dispositions remained fairly consistent. According to Thornton, "the dispositions preservice teachers demonstrate at the end of their preparation program remain relatively constant as they enter their beginning years as professional educators" (p. 13).

Schussler et al. (2010) believed that disposition research should be focused on the way candidates make sense of the teaching situations they encounter. Therefore, teacher education should focus on candidates' awareness of self and the way they process situations in order to enhance innovation. Wilkerson (2006) proposed that the willingness of teachers to implement innovative practices is highly dependent on their dispositions and may actually be more important than measuring content knowledge and teaching skills alone. How candidates internalize their roles as professionals and the duties set before them is indicated by their level of self-efficacy.

### **2.2.1 Defining Dispositions**

Dispositions have been described as values and beliefs but also candidate professional expectations such as punctuality, attendance, class expectations, and academic honesty (Lindahl, 2009). Cudahy et al. (2002) defined dispositions as the values, commitments, ethics, or beliefs that are internally held and externally exhibited.

NCATE (2008) defined dispositions as the professional attitudes, values, and beliefs demonstrated through behaviors.

The lack of a clear, agreed-upon list of preferred dispositional characteristics has led researchers to focus on easily recognizable professional behaviors such as timeliness, promptness, and appropriate dress (Thornton 2013). These attributes are easy to measure but do not capture the complexity of dispositions and do not fully reveal or predict what a new teacher will do, positively or negatively, in the field (Karges-Bone & Griffin, 2009). With no agreement in the definitions of dispositions, Thornton (2013) examined a middle level teacher preparation program that focused on the cultivation of responsive dispositions, grounded in meeting the needs of diverse students. The study found that those who were more responsively disposed evidenced more use of best practices and developmentally responsive teaching. Responsive teaching employs the social, emotional, physical, moral, and cognitive characteristics that consider the diverse needs of young adolescents.

Cummins and Asempapa (2013) found that possessing the desired dispositions of collaboration, inclusiveness, and professionalism was critical to success as a teacher. They studied 99 teacher candidates enrolled in an early childhood education course at an urban university who were given a self-assessment of 15 items, scored on a five-point scale, and three open-ended questions that ranked their behavioral tendencies of collaboration, inclusiveness, and professionalism. These dispositions were identified as important because they were part of the university's conceptual framework and were required to be assessed for accreditation by NCATE.

Schussler et al. (2010) suggested that there was a difference between successful teaching, which realizes intended outcomes and good teaching that is morally worthwhile. Entering teacher candidates viewed the nurturing and interpersonal aspects of a teacher's role as more important than the academic aspects (Brookhart & Freeman, 1992). This was also evidenced when Griffith and Groulx (2014) found that practicing teachers were more likely to adopt student-centered beliefs which is a trait present in the cultural domain (Schussler et al., 2010).

To determine what makes good teachers good, Stronge et al. (2011) compared student achievement scores with teacher beliefs and practices and found that there was a significant difference between effective and less effective practicing teachers in the dispositions of fairness and respect as well as having positive relationships with students. Since there were no significant differences in delivery of content and assessment, these dispositional factors may contribute significantly to teacher effectiveness when considering student achievement gains.

Schussler et al. (2010) developed a framework to categorize teaching experiences through three disposition domains: intellectual, cultural, and moral. After collecting the journal submissions for 35 teacher candidates at two universities, entries were analyzed using a four-stage process to determine how candidates were inclined to think about their experiences. Ultimately, the reflections in the journal articles demonstrated a tendency of candidates to question their thinking and actions, a balance between focusing on self and student (within all the domains), and a consideration of multiple perspectives.

Thompson (2013) argued that multicultural awareness should be considered when discussing teacher education training. Specific instruction and assessment of multicultural



dispositions can provide a measure of growth of cultural awareness, helping to broaden a candidate's perspective and satisfy mandates by national accrediting agencies. Both NCATE and InTASC include multicultural qualities among the broader set of desired teacher dispositions. For the purposes of this study, InTASC's general definition of a disposition will be used: "Dispositions are habits of professional action and moral commitments that underlie an educator's performance" (CCSSO, 2013, p. 6).

### **2.2.2 Assessing Dispositions**

A major challenge in measuring teacher candidate dispositions is the variance in methods used to assess dispositions (Ignico & Gammon, 2010; Thornton, 2006). Program accreditation requires an emphasis on assessing teacher dispositions (CCSSO, 2013), yet little formal guidance is provided on how these assessments should be conducted. Therefore, several models have emerged, which include a focus on professional behaviors, self-reflections, ethics and equity, and dispositions in action (Thornton, 2006), which moves beyond personality traits and minimal behavior expectations.

Internal consistency is also a concern as some institutions measure a different list of desirable dispositions each year (Bradley & Jurchan, 2013). Further, Welch et al. (2010) purported that for accurate assessments specified dispositions need to be defined in terms of values and "concomitant behaviors" (p. 198). In this review of the literature, studies were found that included self-assessments, journals, observed behavior, faculty ratings, and any combination thereof.

While pretest/posttest assessments were found to be the most common (Lindahl, 2009), Ignico and Gammon (2010) indicated that assessment scores may decrease over time. Sixty-five teacher candidates enrolled in a Physical Education Teacher Education

(PETE) program were given the same disposition survey during three sequential methods classes across a two-year period. The teacher of the methods courses also submitted disposition assessments for each candidate.

During the three-semester sequence, the candidate disposition self-assessment scores significantly decreased in the upper-level class. However, the mentor-assessed scores revealed a steady decline over time. Disposition self-ratings and teacher ratings were significantly different in the initial assessments but were most aligned by the third semester (Ignico & Gammon, 2010).

Intervals of assessments of dispositions vary as well. While many studies in my review of the literature focused on assessing dispositions during a time when teacher candidates were engaged in field-based internships (Ignico & Gammon, 2010; Lindahl, 2009; Masunaga & Lewis, 2011; Schussler et al., 2010), testing dispositions early in the candidacy may yield more accurate data to use in selecting and educating candidates (Cummins & Asempapa, 2013; Heinz, 2013).

Another important variable to consider is who conducts the assessment. According to Dunning et al. (2004), “research suggests that self-assessment of skill and character are often flawed in substantive and systematic ways. In general people’s self-views hold a tenuous to modest relationship with their actual behavior and performance” (p. 69). Comparison of self-ratings to mentor ratings, however, not only evaluates a candidate’s perceived self-efficacy but also gives a nod to observed behavior, which may yield a more accurate assessment (Ignico & Gammon, 2010).

After implementing unreliable measurement tools that produced consistently high scores, Bradley and Jurchan (2013) developed a Clinical Experience Rubric (CER) in

hopes of more accurately measuring dispositions and informing candidates of the importance of maintaining appropriate dispositions. The CER included both quantitative and qualitative data and focused on characteristics believed to shape ethical, responsive, and informed teacher candidates and was found to be a more adequate predictor of candidate readiness and disposition measurement. Based on the available criteria, the CER instrument was a research-based model that allowed for a comprehensive evaluation of dispositions.

Melton et al. (2011) found that only 19% of programs indicated that their disposition assessment system was very useful. Major concerns identified with disposition assessment were inter-rater reliability, instrument validity, labor intensity, and skepticism about authentic assessments.

### **2.2.3 Teaching Dispositions**

Despite the National Board for Professional Teaching Standards (NBPTS), NCATE, InTASC, and other content-area organizations mentioning and requiring the measurement of dispositions, they remain a neglected part of teacher education (Thornton, 2006) though there is evidence in the literature that dispositions are malleable. The problem is inconsistency.

Cummins and Asempapa (2013) found that intentional disposition training early in the teacher candidacy can help students reach higher levels of disposition awareness. They noted significant increases in the knowledge and understanding of dispositions on posttest scores, and 83% of candidates reflected that their own perceptions and understanding of dispositions changed from pre-assessment to post-assessment. A comprehensive approach that included course content as well as field experiences

(Cummins & Asempapa, 2013) supported the learning of desired dispositions and offered candidates real-world scenarios from which dispositions can be reflected.

Feedback from and collaboration with instructors played a critical role in disposition development. Some dispositions can be developed over time with proper circumstances and feedback (Green et al., 2011). Schussler et al. (2010) found that immediate feedback from university professors and master teachers positively impacts a candidate's self-efficacy. Masunaga and Lewis (2011) suggested that teacher candidates that value their collaboration with experienced superiors have a high likelihood of success.

A purposeful training was also important to disposition development. Thompson (2013) found that critical instructional efforts can help candidates reach higher levels of disposition awareness and that education majors "welcome the growth they experience from reflecting on them" (p. 80). Garmon (2004) provided evidence that multicultural awareness can be defined and learned and that candidates possessing certain dispositions and exposed to certain experiences in teacher training have greater growth. Furthermore, field experiences that include intense diversity training was advisable.

Additionally, when considering the teaching of dispositions, it is important to investigate what change has occurred in candidate dispositions over the time of education (Ignico & Gammon, 2010) and throughout the first years in the classroom (Thornton, 2013). A consistent, methodical assessment at regular intervals can allow patterns to emerge and give educators an opportunity to intervene.

In a study by Bradley and Jurchan (2013), faculty used a CER at the end of each course and submitted ratings on each student in the class/program. Program directors then

monitored the students' progress quarterly for behavioral trends and to intervene when students were struggling. This collaboration assisted in minimizing challenges in teacher preparation and built a better rapport while using best practices.

#### **2.2.4 Dispositions in Leadership Theory**

Leadership theories often have a dispositional basis (Lindahl, 2009) beginning with trait theory which stated that people were born with certain qualities and characteristics that made them more suitable for leadership positions (Wang et al., 2017). Trait leadership theory was derived in conjunction with Carlyle's (1841) Great Man Theory which asserted that the history of the world was a biography of great leaders. Galton (1869) agreed that leadership is unique to only a select number of individuals who possess certain immutable traits that cannot be developed. These physical, emotional, and cognitive traits, which made them who they were, informed their leadership ability (Zaccaro, 2007). "Traits such as intelligence, energy, self-confidence, and sociability were identified in masculine leaders of the social elite at the time; however, traits from working class leaders, such as labor organizers or social movement leaders were not considered" (Wang et al., 2017, p. 33). Qualities of women leaders and persons of color were not included in trait leadership studies, and components of vision, drive, experience, and the situational context were also omitted.

In the late 1940s, researchers began to deem personality traits insufficient in predicting leader effectiveness. In 1948, Stogdill stated that leadership exists between persons in a social situation, and individuals who are leaders in one situation may not necessarily be leaders in other situations.

As researchers began to study the behaviors of leaders instead of simply their innate characteristics, theories on leadership styles emerged. The style approach centered on what the leader does and how they act, which includes leaders' actions towards their followers in different situational contexts (Northouse, 2004). In examining situational approaches to leadership, researchers turn their attention to the context in which leadership is exercised (Stewart, 2006). Fiedler's (1967) Contingency Theory, Hersey and Blanchard's (1969) Situational Leadership Model, McGregor's (1960) Theory X and Theory Y, and Burns' (1978) Transactional and Transformational Leadership Models emerged as exemplars of situational models of leadership.

“Leadership is a complex set of skills that integrate with an even more complex set of personal traits” (Melton et al., 2011, p. 46). Fiedler's (1967) Contingency Theory stated that effective leadership depended not only on personal traits but also on the control over a situation. The successful completion of tasks was contingent upon three factors: (a) the way the group received the leader, (b) the task involved, and (c) the ability of the leader to exert control over the group. There needed to be good leader-member relations, tasks with clear goals and procedures, and a sufficient level of leader-allocated rewards and punishments. Loss of any of the three would result in failure. The leader-member exchange theory evolved this further by claiming that followers would perform better when they felt part of a team, while out-groups would be less likely to experience good teamwork (Hogan & Kaiser, 2005).

The Contingency Theory (Fiedler, 1967) paved the way for other situational models of leadership by purporting that no single style of leadership can be applied to all situations. After publishing the “Life cycle theory of leadership” in 1969, Hersey and

Blanchard developed the Situational Leadership Theory, which suggests that two key elements need to be matched appropriately: the leader's leadership style and the follower's maturity or preparedness levels. Based on the maturity and confidence levels of the followers, the leader should assess which leadership style is appropriate. Hersey and Blanchard placed an emphasis on the employees and their behavior and stated that leadership should be exercised using different leadership styles depending on the participating members (Hogan & Kaiser, 2005).

McGregor wrote about Theory X and Theory Y beginning in the late 1950s and refined the theory in the 1960 book, *The Human Side of Enterprise*. McGregor (1960) viewed leadership as the human side of enterprise, and he suggested that there are two major approaches of management attitude in the workplace. He aptly named them Theory X and Theory Y. McGregor (1957) postulated that “without this active intervention by management, people would be passive – even resistant – to organizational needs. They must therefore be persuaded, rewarded, punished, controlled – their activities must be directed” (p. 22). While the Theory X techniques encouraged tight control and supervision, the theory implied that employees are inherently lazy and reluctant to organizational change, which discourages innovation. Theory X presents a more pessimistic view of employee behavior and “may lead to mistrust between management and employees and a punitive workplace with highly restrictive supervision and castigatory atmosphere” (Wang et al., 2017, p. 31).

In Theory Y, managers take a more optimistic approach by providing opportunities for employees to take initiative and self-direction (Wang et al., 2017). An employee's satisfaction of ego and self-actualization can be rewards associated with the

efforts directed toward organizational objectives (McGregor, 1960). With a Theory Y mindset, managers will match employees' aspirations and skills with organizational aspirations and needs. Bennis (2006) concluded that Theory Y is prevalent in 21st century leadership training with "a belief that human growth is self-generated and furthered by an environment of trust, feedback, and authentic human relationships" (p. xvi).

Transactional leadership (Burns, 1978) focuses on supervision, organization, and performance and is a style of leadership that promotes compliance by followers through the allocation of rewards and punishments, one of the key factors in Contingency Theory. This model of leadership has well-defined guidelines and policies and improves efficiency through established routines and procedures (Wang et al., 2017). Rewards for meeting outcome standards may include an increase in pay, bonuses, or gifts, but those who do not meet the outcome standards may be punished through reductions in pay or even loss of job (Monaghan, 2010).

Incorporating elements of other leadership theories, Transformational Leadership Theory is a process in which leaders and followers help each other to advance to a higher level of morale and motivation (Burns, 1978). This contradicts transactional leadership. Effective transformational leadership depends on the leaders' dispositions coupled with follower engagement, and, while studies of transformational leaders have been focused on behaviors of effective leaders (Melton et al., 2011), in Burns' (1998) view, transformational leadership should be clarified into three categories: (a) ethical values, such as kindness and altruism; (b) modal values, such as integrity, honesty, and accountability; (c) and end values, such as liberty, equality, justice, and community.



“Transformational leadership is focused on developing and motivating followers to support the greater good” (Wang et al., 2017, p. 18) through intellectual stimulation, selflessness, and individual consideration.

Transformational leaders help their followers grow and develop into leaders by listening to their needs, empowering them, and moving followers to exceed expected performance (Bass, 1998). While Transactional leadership is task-oriented and uses rewards and punishment as the stimuli for employee effort, transformational leadership involves having the ability to get people to want to change, to improve, and to be led. It involves assessing subordinate motives, satisfying their needs, and valuing their contributions (Northouse, 2004). Transformational leadership allows followers to explore their full potential.

### **2.2.5 Dispositions in Educational Leadership**

“The development of leadership capacity for school administrators begins with self-knowledge” (Green et al., 2011, p. 9). Similar to teacher candidate disposition research, the literature has revealed many challenges in educational leadership disposition assessment. Lindahl (2009) found that the teaching and assessing of leadership dispositions was inconsistent among educational leadership programs in the U.S. While educational leadership program standards have been aligned with knowledge, skills, and dispositions, more recent assessments have focused on performance expectations and indicators of the profession (Melton et al., 2011). Similar to teacher certification programs, accreditation standards have emphasized the need for disposition assessments among educational administration programs. However, as Melton et al. (2011) found,

most professors of educational administration acknowledge that their systems are inadequate.

The disposition assessments of educational administrators found in the literature were inconsistent and varied in definition, measurement, and criteria. Perhaps it is for this reason that Green et al. (2011) asserted that there is no single path to leadership effectiveness. Among the more comprehensive empirical studies on educational leadership dispositions incorporate elements of leadership style theory (Martin, 2009; Melton et al., 2011; Wasonga & Murphy, 2007), situational response (Wildy & Loudon, 2000), and leadership standards (Schulte & Kowal, 2005).

Due to the variance in definitions of appropriate education leadership dispositions found in the literature, Melton et al. (2011) used seminal leadership theories to name 14 key dispositions for educational administrators reflecting Theory X, Theory Y, Soft-X, Pseudo-Y, and transformational leadership styles. The list was called the School Leadership Disposition Inventory (SDLI), which was developed to provide “a time-efficient and cost-effective instrument grounded in leadership theory that could be used to assess the dispositions of candidates” (Melton et al., 2011, p. 46), and evaluated the dispositions of (a) kindness; (b) altruism; (c) integrity; (d) honesty; (e) accountability; (f) liberty; (g) equality; (h) justice; (i) community; (j) participation; (k) dignity, worth, and growth; (l) openness; (m) influence; and (n) trust, feedback, and relationships. Participants, candidates of education administration programs, measured responses to 15 brief scenarios on a five-point Likert scale based on how much they agreed with the course of action. Results of the study found the SDLI to be a valid and reliable tool to assess educational administration candidate dispositions, though the researchers noted

that a sample comprised of practicing administrators might yield “decidedly different results” (Melton et al., 2011, p. 45).

Similarly, Wasonga and Murphy (2007) designated two components that co-create leadership: dispositions and context. They defined co-creating leadership as the proactive and dynamic processes of engaging the full use of the organization’s human potential. The co-creating leadership model was designed based on transformational practices. In assessing the leadership of building-level administrators, Wasonga and Murphy (2007) used the following eight dispositions: (a) collaboration; (b) active listening; (c) cultural anthropology; (d) egalitarianism; (e) patience; (f) humility; (g) trust and trustworthiness; and (h) resilience, and identified that collaboration, active listening, and trust and trustworthiness were the most essential in impacting student outcomes. Furthermore, their explanation of context as a key factor in co-creating leadership echoes the situational leadership concepts of Fiedler (1967), McGregor (1960), Burns (1978), and Hersey and Blanchard (1969).

Martin (2009) assessed dispositions of leadership through the lens of four domains connected to transformational leadership: (a) professional demeanor and work habits; (b) relationships; (c) intellectual integrity; and (d) moral and ethical dimensions. The study examined relationships between principals’ leadership styles and the faculty’s perceptions of school climate. Martin found that principals presented the following dispositions as strengths: (a) effort; (b) cooperation and collaboration; (c) being reflective and self-aware; and (d) being open minded and receptive to unique styles and ideas. However, teachers perceived inspirational motivation as the highest quality necessary for their school’s leadership. Martin (2009) concluded that there is a significant relationship

between factors of principals' leadership styles and factors of school culture. More specifically, there is a positive relationship between factors of transformational leadership and school culture.

Wildy and Louden (2000) postulated that the key dispositions of effective school leaders were caring for others, strength in making decisions and getting things done, fairness, being open to alternatives, and involving others. Their study categorized principals' work into three dilemmas: (a) the autonomy dilemma, providing strong and shared leadership; (b) the efficiency dilemma, providing efficient decision-making; and (c) the accountability dilemma, empowering local decision-making while complying with external requirements. The study revealed that judgements in what matters in principals' actions in the face of dilemmas were tied to their self-efficacy in applying appropriate skills, knowledge, and dispositions in decision-making.

Similarly, Schulte and Kowal (2005) created the Administrator Dispositions Index (ADI), which was developed by aligning lists of dispositions of effective school leaders from the CCSSO and the National Association of Secondary School Principals with the Standards for Advanced Programs in Educational Leadership. Schulte and Kowal (2005) tested graduate students in their practicum course, and following a factor analysis and reliability analysis, 36 items were used to measure the dispositions of effective school leaders in two subscales focused on student-centered and community-centered dispositions. The study indicated a significant relationship between participants' perceptions of their commitment to the dispositions of effective school leaders on the community-centered dispositions and their school district classification with leaders from the largest districts being more committed to the community-centered dispositions than

school leaders from the smallest districts. Schulte and Kowal (2005) further indicated that in the area of dispositions, awareness, and self-reflection are essential to the learning process and to determining one's own growth.

A common theme in these empirical studies is the examination of leadership through the self-efficacy of the leader—how they respond to dilemmas, how they perceive their abilities, and how they utilize their abilities to affect change. Common dispositions in the literature include collaboration between administrator and faculty, equality, and professional behaviors.

Many institutions have shied away from using disposition assessments of administrative candidates in hiring or admissions decisions for fear of legal reprisal (Lindahl, 2009). Due to the discrepancies in definitions and preferred dispositions, it is difficult to determine the predictive validity of dispositions (Green et al., 2011). Unlike new teachers (Thornton, 2013), educators who completed a leadership degree with what was deemed to be appropriate dispositions for the profession were reconditioned at the school or district level (Lindahl, 2009). Moving forward, Nelson et al. (2014) indicated that leadership skills do not change throughout the maturity of a career.

Bryant et al. (2017) investigated the effectiveness in succession planning techniques of principals. They found that teachers valued their relationships with their principals and perceived the relationship as a conduit for leadership development. Secondly, teachers felt prepared through the authentic administrative practices of their principals. Bryant et al. (2017) suggested that transformational leadership attributes help support the rise of new educational leaders.

According to the Department for Professional Employees (DPE), principals are “expected to be highly dynamic individuals, who often anticipate unexpected daily events” (DPE, 2019, p. 4). The report by the DPE also stated that many principals were classroom teachers prior to taking administrative positions, having an average of 12.7 years of teaching experience for public school principals and an average of 10.2 years for private school principals. Male principals on average had fewer years of teaching experience than female principals, and, in the 2011-2012 school year, 52% of all public K-12 principals were women (DPE, 2019), yet 76% of superintendents were men (National Center for Education Statistics [NCES], 2013).

In 2015, 65.7% of all educational administrators were women (DPE, 2019) but many did not progress further. Jarrett et al. (2018) found that a candidate’s gender did not significantly affect the school board chairperson’s decision to grant an interview for superintendency. However, it did show that chairpersons were more likely to grant interviews to traditional superintendent candidates, those who have educational experience at some level prior to pursuit of a superintendency, than those who were nontraditional, superintendent candidates who have a business or military background.

Making the transition to educational administration can be difficult for teachers. Inhibiting factors were the added stress of administrative duties and the negative attitudes, comments, and resistance from colleagues (Bryant et al., 2017). However, intentions are still unknown. Phelps (2008) stated that a teacher’s decision to pursue leadership is based on their longing for making a difference. “When teachers recognize that leading increases their overall difference-making ability, they will be more inclined to seize the opportunity to serve in this capacity” (Phelps, 2008, p. 120).

### **2.2.6 Traditional vs. Alternative Certification**

The traditional method for securing a teaching certification is to earn a bachelor's degree in education with a clinical residency component. However, in the 1980s, alternative routes emerged (Shuls & Trivitt, 2015) and have continued to develop with the intent of attracting qualified professionals to the field of education (Brown et al., 2006). Sass (2011) found that alternatively certified teachers are more likely to be from highly competitive universities and to score higher on the SAT.

While it has been widely noted in the literature that alternative programs have improved the teacher pool by increasing the percentage of males and adding diversity within the teaching profession (Abell et al., 2006; Sass, 2011; Shoho & Martin, 1999; Yin & Partelow, 2020), studies conflict regarding the quality and readiness of alternatively certified when compared to traditionally certified teachers. The literature is split with some studies finding no difference between groups (Bowe et al., 2011; Constantine et al., 2009; Decker et al., 2005; Shuls & Trivitt, 2015; Uriegas et al., 2014; Yao & Williams, 2010) and others revealing the opposite (Allen, 2003; Clotfelter et al., 2010; Schonfeld & Feinman, 2012). Honawar (2007) purported that reports appear to conflict partly because of the wide variation among programs.

No matter the differences, Rochkind et al. (2007) and Carter (2021) both found that the primary reason most teachers join the field is the belief that they can make a difference to students academically, in their lives, and for their future. Rochkind et al. also found that almost half of alternative certification candidates said they would not be able to pursue teaching without the alternative pathway being available.

### 2.3 Synthesis

Review of the literature shows considerable investigation into the dispositions of potential and practicing teachers, principals, and superintendents. Even general leadership dispositions are presented but less is known about the leadership dispositions of teacher candidates. An understanding of desired dispositions and competencies of educational administrators is important in developing impactful leaders. The overall strength in this review is that general conclusions of the studies have thematic consistency though the individual methodology and results differ from study to study. Alternatively, the major weakness in the studies presented by the literature review is that there is little consistency in the definition, assessment of dispositions, and methods of teaching dispositions.

The review indicates that disposition assessment and research is complex. However, a trend in the growth and maturity of education leaders have emerged. The literature demonstrates that dispositions can be measured (Ignico & Gammon, 2010; Thornton, 2006; Thornton, 2013) and are malleable (Cummins & Asempapa, 2013; Garmon, 2004; Green et al., 2011). Candidates reflect the same dispositions at the time of graduation as they do during the first five years of teaching (Thornton, 2013). The majority of principals have taught in the classroom (DPE, 2019) as well as traditional superintendents (Jarrett et al., 2018). If researchers can settle on the common dispositions of top educational leaders, the right combination of disposition training and assessment may help develop leadership traits and identify potential education leaders as early as teacher candidacy.



### **2.3.1 Critique of Previous Research**

A major challenge in measuring teacher candidate dispositions is the variance in methods used to define and assess dispositions (Ignico & Gammon, 2010; Thornton, 2006). Internal consistency is also a concern as some institutions measure a different list of desirable dispositions each year (Bradley & Jurchan, 2013). Using a consistent instrument and data analysis will allow for a look at the self-perceived efficacy and behavioral trends of future education leaders and offer adequate consideration of disposition measurement reliability. Melton et al. (2011) found that only 19% of programs indicated that their disposition assessment system was very useful. Major concerns identified with disposition assessment were inter-rater reliability, instrument validity, labor intensity, and skepticism about authentic assessments.

### **2.3.2 Review of Methodological Literature**

While pretest/posttest assessments were found to be the most common (Lindahl, 2009), Ignico and Gammon (2010) indicated that assessment scores may decrease over time. An important variable to consider is the person who conducts the disposition assessment. Much of the literature turns to self-assessments as the preferred instrument. However, collecting both self-assessments and observations of dispositions gives a nod to a candidate's perceived self-efficacy but also to observed behavior. It is suggested that this presents a more realistic valuation of candidates' dispositions. Ignico and Gammon found that assessments from both the candidate and the mentor teacher yielded a much more accurate picture of dispositions.

### **2.3.3 Summary**

Trends in the literature indicate that disposition research is complicated, even controversial, due to the difficulty in defining dispositions (Cummins & Asempapa, 2013; Griffith & Groulx, 2014; Thompson, 2013) and in the considerable variability in assessment methodology (Bradley & Jurchan, 2013; Brookhart & Freeman, 1992; Ignico & Gammon, 2010). In teacher preparation, it is important to first consider which dispositions are appropriate (Cummins & Asempapa, 2013; Schussler et al., 2010; Thornton, 2006). Once dispositions are defined, the literature indicates that they are malleable (Bradley & Jurchan, 2013; Ignico & Gammon, 2010; Thompson, 2013; Thornton, 2013).

The literature echoes similar sentiments for education leaders due to little consistency in suggested dispositions and assessment criteria (Green et al., 2011; Lindahl, 2009; Wildy & Loudon, 2000). Even the shift from building-level to district-level administration demonstrates sharp differences (Bryant et al., 2017; Jarrett et al., 2018). A case study conducted by the researcher examined the disposition of district-level public school administrators and found that knowledge, teamwork, and an understanding of others were important factors that influenced the self-efficacy of leaders (LaCaze, 2018).

## **CHAPTER 3**

### **METHODS**

#### **3.1 Introduction**

The purpose of this non-experimental study was to examine dispositions of preservice teachers in the final stages of receiving certification and investigate possible correlations between specific dispositions and leadership aspirations. The study examined differences between the self-reported dispositions of traditional certification candidates and alternative certification candidates. Self-assessments speak to the current state of perceived self-efficacy, the theoretical lens of this study. According to Kang (2005), individual ability is not what directly drives self-efficacy; it is the individual's perception of that ability. "Among the most central, fundamental components of individuals is the basic conviction they have in themselves" (Hiller & Hambrick, 2005, p. 297).

Subjects of the study were preservice teachers who were preparing for the first year of independent teaching, completing a clinical residency from one of nine universities in the University of Louisiana System (ULS) in 2019 or 2020, and who were soon to receive teaching certification. Throughout the study, two groups were represented based on certification track: traditional and alternative. Although participants received teaching certification in Louisiana, they may represent a national range. Approval from

the Louisiana Tech University Institutional Review Board (IRB) (see Appendix C) was obtained prior to conducting the study.

The survey instrument used in this study consists of the TDSS and the PDCS. The TDSS is a researcher-developed supplement that collected self-reported demographic information, certification level and area, and career aspirations, and preceded the PDCS in the research instrument.

The PDCS is a 42-item scale that measures the professional dispositions of teacher candidates, corresponds with InTASC standards, satisfies CAEP's accreditation requirements, and is a reliable instrument already in use by one university. At this institution, the PDCS was given to both alternative and traditional certification candidates at regular intervals based on milestone courses during their time of training. Mentor teachers also used the PDCS to evaluate each candidate's dispositions at these same intervals. When coded and stored correctly, these survey results were used to evaluate any changes in dispositions over time. However, only current responses from this study's independently administered survey were used for any participant. Any previous self-reflections or mentor-conducted surveys by any university were not used and are kept confidential within the university.

The overarching research question for this study was: How can the PDCS be used to identify future education leaders? The specific research questions are:

Research Question 1: Is there a significant difference between the self-reported dispositions of traditional certification preservice teachers and alternative certification preservice teachers?

- (H<sub>0</sub>) There is no significant difference between the self-reported dispositions of traditional certification preservice teachers and alternative certification preservice teachers.

Research Question 2: What relationship, if any, is there between the fourteen leadership domain dispositions that form the abridged research instrument and the leadership aspirations of teacher candidates?

- (H<sub>0</sub>) There is no significant relationship between the dispositions of preservice teachers and their leadership aspirations.

Research Question 3: Can age, gender, race, certification pathway, certification area, or the leadership dispositions of the collaborative, professional, inclusive, or modernistic constructs influence the leadership aspirations of preservice teachers?

- (H<sub>0</sub>) There are no factors that significantly influence the leadership aspirations of preservice teachers. The regression coefficient is equal to 0.

### **3.2 Research Methods**

This study gathered quantitative self-reported survey data to answer the research questions. The TDSS and PDCS were administered to preservice teachers at the close of their residency period via SurveyMonkey. Because dispositions are very personal in nature, the participants were asked to reflect on the questionnaire and answer honestly, and they were assured that no identifying information was collected. The self-reflection method spoke to the current perceived self-efficacy of participants and coincided with the dispositional research standards set forth by CAEP and the National Educational

Leadership Preparation (NELP) standards set forth by the National Policy Board for Educational Administration (NPBEA).

### **3.3 Subjects**

The purposeful sample of candidates from ULS in 2019 and 2020 was chosen in order to measure the dispositions and leadership aspirations of pre-service teachers from both traditional certification and alternative certification programs at the close of their clinical residencies. The research instrument was administered to several cohorts over a 2-year period. Two groups were invited to participate from each university: traditional certification teacher candidates and alternative certification teacher candidates. Although participants received teaching certifications in Louisiana, they may represent a national range.

### **3.4 Procedures**

Teacher candidates were given the TDSS and PDCS at the close of their clinical residencies. Each candidate was provided with a consent form on the first page of the survey to which he/she agreed before voluntarily participating in this study. The consent form accompanied the research instrument and was provided in the same manner and at the same time and asked for an electronic authorization before access to the research instrument was granted. Any candidate that declined to provide consent was dismissed from the survey.

Survey responses were kept on a password-protected computer. Only the researcher and university officials, given permission by the department head or dissertation chair, had access. The process was repeated for the next sequential group of certification completers.

The survey was disseminated with the help of institutional representatives with follow-up communication by the researcher via email with no more than six follow-up touch points. Representatives were chosen after close examination of each university's website and staff directory. Where a director or department head of the teacher education program was not defined or available, the dean of education was contacted. The email to preservice teachers was jointly signed by the researcher and institutional representative and reiterated to participants the intentions of the study and the researcher's commitment to confidentiality. The invitation to participate informed candidates that consent to obtain and use information will be asked of the participants at the start of the study.

Responses from sequential cohorts were added to the first. A commitment to strict confidentiality was maintained. A numeric identifier was given for each participant, and no identifying information was collected.

### **3.5 Instruments**

The TDSS was a researcher-developed supplement that preceded the PDCS on the survey and asked participants to provide demographic information, professional data, and to measure their career aspirations. Variables collected on the TDSS were: (a) gender, (b) age range, (c) race, (d) certification pathway, (e) certification area/level, and (f) career aspirations.

The PDCS allowed individuals to reflect on their dispositions using a five-point Likert scale. The self-reported variables measured by the survey included (a) personal beliefs, (b) commitments, (c) professional community, (d) ethics, and (e) expectations for learning. It aligned with the accreditation standards put forth CAEP and InTASC and was

the current instrument used by one participating institution for both self-assessed and mentor-assessed dispositional evaluation of teacher candidates.

Fourteen items on the PDCS were identified as dispositions that match with the NELP Program Recognition Standards (NPBEA, 2018) for building-level educational leadership. The NELP building-level standards have been deemed appropriate by the NPBEA, for advanced program assessment at the master, specialist, and doctoral levels that qualify assistant principals, principals, curriculum directors, supervisors, and other education leaders in a school building environment. This correlation has been deemed valid through a preliminary Delphi study conducted by the researcher.

### **3.6 Role of the Researcher**

The researcher had several roles in this study as a planner, communicator, and facilitator. After gathering information about teacher candidate and educational leader dispositions, the researcher located and verified the use of the PDCS, located experts to serve as panelists for the Delphi study, communicated details of the study, and facilitated a process for feedback and evaluation of leadership dispositions.

Upon completion of the Delphi and development of the research instrument, university contacts were chosen after close examination of each institution's website and staff directory. The director, department head/chair, or dean overseeing the teacher preparation program for each university was the initial point of contact. Initial contact was made via email with follow-up communication via phone when necessary.

### **3.7 Delphi Study**

Fourteen items on the PDCS were identified by a Delphi study to correlate with NELP standards. Comprising of three rounds, a Delphi method of consensus



development was used by the researcher to validate the correlation and establish a convergence of opinion (Bush & Jones, 2010; Hanafin, 2004; Van de Ven & Delbecq, 1974). Following Murry and Hammons (1995) suggestion, 10 experts were chosen to participate in the Delphi study to maintain reliability. Experts were chosen due to their experience in mentoring student teachers and teaching instructional methods at the university level (Bair, 2017). Using Linstone and Turoff's (2002) suggested three-round process, in Round 1, participants were asked to rate their level of agreement/disagreement with the 14 pairings and offer feedback. Responses were collected on a Likert scale of 1-5 for each item with 1 representing strongly disagree and 5 representing strongly agree. The responses were analyzed with descriptive statistics, and a central tendency statistical analysis was conducted to analyze the data using the level of the percentage of agreement. An *a priori* measure of consensus was set at 80% (Falzarano & Pinto Zipp, 2013; Murry & Hammons, 1995). Analysis of the first round of the Delphi process resulted in more than 80% consensus on each item; thus, the Delphi technique was concluded, and the correlation was determined to be valid for all 14 items.

### **3.8 Data Collection and Analysis**

With an abridged version of the PDCS now being used to represent dispositions that fall within the leadership domain, an exploratory factor analysis was used to narrow and evaluate related items within the leadership domain (Muijs, 2011; Schulte & Kowal, 2005). The analysis identified four constructs. Internal reliability was tested and found to be acceptable.

Three research questions were answered by analyzing the collected data: (1) Is there a significant difference between the self-reported dispositions of traditional

certification preservice teachers and alternative certification preservice teachers?,  
(2) How do 14 dispositions on the self-reported PDCS, which were determined to be within the leadership domain, relate to the leadership aspirations of preservice teachers?, and (3) What factors, if any, influence the leadership aspirations of preservice teachers?

To answer Research Question 1, participants were then separated into two groups based on their certification type as indicated in the TDSS. A measure of central tendency was found for each participant, representing the mean score of the 42 items, which were scored on a five-point Likert scale. Because there were two groups and both sets of data were interval data, the mean scores from the PDCS were first compared using an independent t-test to determine initial differences between traditional certification candidates and alternative certification candidates. The results revealed if a significant difference exists between the self-assessed dispositions of traditional certification candidates and alternative certification candidates. An alpha level of .05 was used.

Then, the analysis was repeated for the 14 items that were identified to be within the leadership domain. An independent t-test determined whether there is a significant difference between the leadership dispositions of traditional certification candidates and alternative certification candidates. To reduce the risk of a Type I error, the alpha level was set to .05.

The second analysis measured the relationship between aspirations to seek a career in educational leadership and the participants' self-reported scores on the 14 disposition items in the leadership domain. To answer Research Question 2, the 14 items (see Appendix A) identified by the Delphi were used as an abridged instrument of the full

PDCS instrument. The participants were separated into two groups based on the certification type as indicated in the TDSS.

A binary logistic regression analysis was used to examine the possible relationship between the leadership aspirations of preservice teachers and 14 items within the leadership domain based on the four constructs identified by the factor analysis: (1) collaborative, (2) professional, (3) inclusive, and (4) modernistic.

To address Research Question 3, a binary logistic regression analysis was also used to examine any other factors that influence a preservice teacher's aspirations for leadership based on the categorical factors that were provided by the TDSS at the start of the research instrument. An alpha level of .05 was used to determine the factors that have a significant relationship to leadership aspirations.

These three research questions are designed to give insight to and collectively address the overarching research question, which is: Can the PDCS be used to identify future education leaders? Each analysis uniquely examines the connections between dispositions, motivation, and leadership intent.

## **CHAPTER 4**

### **RESULTS**

#### **4.1 Introduction**

The purpose of this non-experimental study was to examine the current dispositions of preservice teachers who are in the final stages of receiving certification and to investigate factors that influence leadership aspirations. The study examined differences between the self-reported dispositions of traditional certification candidates and alternative certification teachers and any factors that influence aspirations to enter educational leadership. This chapter will detail the results of this study and participants. Following the Delphi method, the results of the exploratory factor analysis will be presented and explained, along with other analyses in the context of the research questions.

#### **4.2 Research Instrument Response**

A total of 186 teacher candidates responded to the survey. Upon initial inspection of the data, 24 (12.9%) responses were deemed to be invalid and were removed from the sample. Five candidates did not provide consent and were immediately dismissed from the survey, while 19 others failed to complete 20% or more of the survey. The sample for this study included 162 valid responses.

#### **4.2.1 Demographics**

Participants self-reported demographic information, certification pathway and level/area, and career aspirations on the TDSS, the first portion of the research instrument. Variables collected from the TDSS were: (a) gender, (b) age range, (c) race, (d) certification pathway, (e) certification area/level, and (f) career aspiration of education leadership.

Females represented 86.4% (n=140) of respondents, men represented 12.3% (n=20), and 1.2% (n=2) chose not to disclose this information. These percentages were consistent with current teacher education trends. Yin and Partelow's (2020) stated that IHE traditional and alternative certification programs, as well as non-IHE alternative certification programs, all enroll at least twice as many female students as male students.

The age range of participants were grouped by <20 (4), 20-24 (114), 25-29 (14), 30-34 (6), 35-39 (18), 40-44 (4), and 45+ (2). Race or ethnicity was distributed as follows: African American or Black (6), Asian (2), Caucasian or White (144), Hispanic (4), and Bi-Racial (6).

Table 4.1

*Candidate Demographics by Certification Pathway*

Demographic	Frequency	
	Traditional Certification <sup>a</sup>	Alternative Certification <sup>b</sup>
<b>Gender</b>		
Female	110	30
Male	16	4
Undisclosed	2	0
<b>Age Group</b>		
<20	4	0
20-24	108	6
25-29	4	10
30-34	0	6
35-39	10	8
40-44	0	4
45+	2	0
<b>Race</b>		
African American or Black	0	6
Asian	2	0
Bi-Racial	4	2
Caucasian or White	118	26
Hispanic	4	0

<sup>a</sup>n = 128<sup>b</sup>n = 34

From the 162 valid responses, 128 teachers (79%) indicated they will receive their teacher certification through traditional teacher education programs, and 34 (21%) indicated they took part in alternative certification programs. The percentage of preservice teachers from each certification pathway who participated in this study was consistent with national trends as reported by Yin and Partelow (2020). “As of 2019, about 75% of enrollment in teacher preparation programs was in a traditional program” (Yin & Partelow, 2020, para. 13).

Subjects were asked to indicate certification area/level (Table 4.2) for all certificates that apply: (a) All-level K-12 (b) Early Childhood, (c) Elementary, (d) Middle School, (e) Secondary, and (f) Special Education. Of all participants, 27% (n=44) indicated they were completing two or more certification areas.

Table 4.2

*Area/Level of Certification by Certification Pathway<sup>a</sup>*

Certification Area	Frequency
<b>Traditional Certification</b>	
All-level K-12 Certificate	20
All-level K-12 Certificate, Secondary Certificate	2
Early Childhood Certificate	28
Early Childhood Certificate, Elementary Certificate	2
Early Childhood Certificate, Special Education	4
Early Childhood Certificate, Elementary Certificate, Special Education	4
Elementary Certificate	34
Elementary Certificate, Middle School Certificate	2
Elementary Certificate, Special Education	4
Middle School Certificate	0
Middle School Certificate, Secondary Certificate	8
Middle School Certificate, Special Education	0
Secondary Certificate	20
<b>Alternative Certification</b>	
All-level K-12 Certificate	0
All-level K-12 Certificate, Secondary Certificate	0
Early Childhood Certificate	8
Early Childhood Certificate, Elementary Certificate	0
Early Childhood Certificate, Special Education	2
Early Childhood Certificate, Elementary Certificate, Special Education	0
Elementary Certificate	2

Certification Area	Frequency
Elementary Certificate, Middle School Certificate	0
Elementary Certificate, Special Education Middle School Certificate	10
Middle School Certificate, Secondary Certificate	2
Middle School Certificate, Special Education Secondary Certificate	2
Middle School Certificate, Special Education Secondary Certificate	4
Secondary Certificate	4

<sup>a</sup>Items shown by certification pathway and include only area/levels and combinations provided by participants. List is not representative of all possible combinations.

Next, participants were asked if, at any time in the future, they aspire to enter educational administration. Among all participants, aspirations to enter leadership positions were nearly even with 51.85% (n=84) selecting no and 48.15% (n=78) answering yes. By pathway, aspirations for leadership were highest among alternative certification candidates (64.7%, n=22) compared to traditional certification candidates (43.75%, n=56). Responses are shown by certification pathway in Table 4.3.

Table 4.3

*Aspirations for Leadership by Certification Pathway*

Aspirations for Leadership	Frequency
Traditional Certification	
No	72
Yes	56
Alternative Certification	
No	12
Yes	22

Participants with aspirations for leadership, were then asked the time period for which they expect to pursue a career in school administration: (a) 1-5 years, (b) 6-10



years, (c) 11-15 years, and (d) 11+ years. Of all participants who aspire to enter school administration, 30.77% (n=24) indicated they wish to do so in 1-5 years, 53.85% (n=42) in 6-10 years, 7.69% (n=6) in 11-15 years, and 7.69% (n=6) in 16+ years. By certification pathway, alternative certification candidates aspired to enter school administration at a sooner interval than traditional certification candidates; 63.64% of alternative certification candidates with aspirations for leadership indicated entering building-level leadership in 1-5 years, compared to 17.86% of traditional certification candidates with the same leadership aspiration in 1-5 years. Table 4.4 shows candidates' responses for anticipated time before entering leadership.

Table 4.4

*Time Period of Leadership Aspirations by Certification Pathway*

Leadership Aspiration Time Period	Frequency
Traditional Certification	
1-5 years	10
6-10 years	34
11-15	6
16+	6
Alternative Certification	
1-5 years	14
6-10 years	8
11-15	0
16+	0

### 4.3 Delphi Study

Following Murry and Hammons' (1995) suggestion, 10 experts were chosen to participate in a Delphi study based on their experience in mentoring student teachers and

teaching instructional methods at the undergraduate and graduate university level (Bair, 2017). Following Round 1 of the three-round process (Linstone & Turoff, 2002), the responses were analyzed with descriptive statistics, and a central tendency statistical analysis was conducted to analyze the data using the level of the percentage of agreement. An *a priori* measure of consensus was set at 80% (Falzarano & Pinto Zipp, 2013; Murry & Hammons, 1995). Using Tastle and Wierman's (2007) technique for measuring ordinal dispersion, analysis of the first round of the Delphi process resulted in more than 80% consensus on each item (See Table 4.5). Additionally, all 14 items on the survey received a rating of Agree or Strongly Agree from the panelists indicating agreement with each pairing. Thus, the Delphi technique was concluded, and the correlation was determined to be valid for all 14 pairings (See Appendix A).

Table 4.5

*Delphi Descriptive Statistics for Leadership Pairings<sup>a</sup>*

Pairing	Mean	Median	Mode	Std. Dev.	Var.	Cns.
1	4.7	5	5	.483	.233	.838
2	4.6	5	5	.515	.267	.815
3	4.5	4.5	4 <sup>b</sup>	.527	.278	.807
4	4.6	5	5	.516	.267	.815
5	4.8	5	5	.422	.178	.876
6	4.7	5	5	.483	.233	.838
7	4.6	5	5	.516	.267	.815
8	4.6	5	5	.516	.267	.815
9	4.7	5	5	.483	.233	.838
10	4.6	5	5	.516	.267	.815
11	4.6	5	5	.516	.267	.815
12	4.6	5	5	.516	.267	.815
13	4.9	5	5	.316	.100	.930
14	4.1	4	4	.316	.100	.930

<sup>a</sup>See Appendix A for pairings.

<sup>b</sup>Multiple modes exist. The smallest value is shown.

#### 4.4 Factor Analysis

The participants' responses to the 14 items that fall within the leadership domain were subjected to an exploratory factor analysis to determine which factors were most eligible for interpretation. The factor analysis was performed on the data using SPSS version 26 and using Varimax (orthogonal) rotation with Kaiser Normalization. Table 4.6 shows the initial eigenvalues and cumulative percentages.

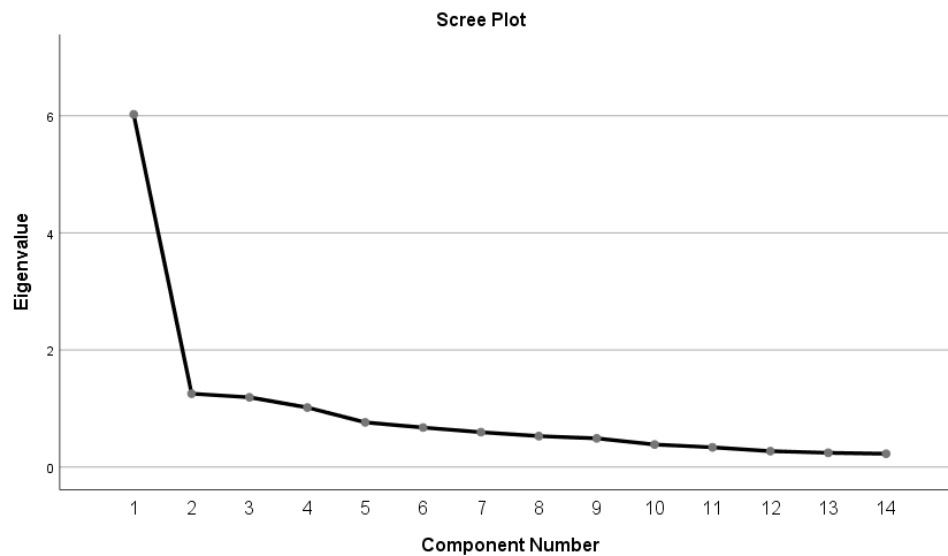
Table 4.6

*Eigenvalues and Cumulative Percentages of Components*

Component	Total	% of Variance	Cumulative %
1	6.025	43.035	43.035
2	1.253	8.949	51.984
3	1.191	8.509	60.493
4	1.016	7.261	67.753

While the highest eigenvalue was found in Component 1, a scree plot demonstrates eigenvalues for all 14 variables. The Kaiser Rule (Kaiser, 1960) is based on the principal of retaining components which have greater than or equal power to explain the data than a single variable. Review of the initial eigenvalues and scree plot (Figure 1) show that values fall below 1.00 for items following Component 4.

Figure 4.1

*Scree Plot for Factorial Analysis*

#### 4.4.1 Identifying Primary Components

Several conditions for the use of the Principal Component Analysis were met. The factor loadings converged in 8 iterations with no outliers; therefore, no items were removed. The analysis identified four constructs with 67.75% of the variance explained. Construct 1 explained 22.165% of the variance, Construct 2 18.498%, Construct 3 14.877%, and Construct 4 explained 12.214% of the variance. Table 4.7 demonstrates the percent of variance following the convergence.

Table 4.7

*Percent of Variance for the Four Primary Components*

Component	Rotation Sums of Squared Loadings <sup>a</sup>		
	Total	% of Variance	Cumulative %
1	3.103	22.165	22.165
2	2.590	18.498	40.663
3	2.083	14.877	55.540
4	1.710	12.214	67.753

<sup>a</sup>Extraction Method: Principal Component Analysis

#### 4.4.2 Naming Primary Components

Construct 1 was labeled “Collaborative” due to the five items in the grouping containing elements of communication and collaboration, use of appropriate language, and positive interaction with stakeholders. The label, “Professional,” spoke to the four items in Construct 2 which contained the use of appropriate professional standards, life-long learning, sound judgement and ethical behavior, and representing a positive role model for others. Construct 3 involved three items that contained the quality of being

“Inclusive.” Those are: (a) demonstrate a positive attitude about working with diverse people in diverse environments, (b) acknowledge perspectives of others from diverse cultural and experiential backgrounds, (c) and value multiple aspects of diversity. The name “Modernistic” was chosen for Construct 4 since these items spoke to use of modern practices which were incorporating technology and responding to the needs of all learners. Table 4.8 demonstrates the constructs and affiliated dispositions.

These constructs included the items that loaded highest within each. The loadings ranged between 0.60-0.81 for collaborative, between 0.65-0.76 for professional, between 0.58-.082 for inclusive, and between 0.56-0.76 for modernistic.

Table 4.8

*Grouped Factors and Correlations*

Constructs and Associated Dispositions	Correlation Value
<b>Construct 1: Collaborative</b>	
12. Interacts with other colleagues, administrators, parents, and other community members with courtesy and civility.	.624
20. Uses sound judgement in decision making.	.670
24. Consistently exhibits attitude and uses language that indicates high expectation of growth and success for all learners.	.705
25. Demonstrates positive interactions with peers, professionals, and other personnel.	.811
33. Communicates effectively, verbally and in written work.	.596
<b>Construct 2: Professional</b>	
39. Uses appropriate professional and/or content standards.	.756
40. Continues to seek knowledge and professional development.	.732
41. Exercises sound judgement and ethical professional behavior.	.659
42. Represents a positive role model for others.	.649

Constructs and Associated Dispositions	Correlation Value
Construct 3: Inclusive	
4. Demonstrates a positive attitude about working with diverse people, peers, professionals, and in diverse environments.	.582
13. Acknowledges perspectives of individuals from diverse cultural and experiential backgrounds.	.754
21. Values multiple aspects of diversity.	.816
Construct 4: Modernistic	
26. Consistently responds to the needs of all learners.	.559
35. Incorporates technology into professional work.	.759

*Note.* Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

<sup>a</sup>Rotation converged in 8 iterations.

#### 4.4.3 Internal Reliability

Internal reliability (Cronbach's alpha) was calculated for the 14 dispositions that fall within the leadership domain. This calculation yielded a coefficient of .892, suggesting that the items have a relatively high internal consistency. The reliability coefficient for each construct were: .826 for the five items in the collaborative construct, .793 for the four items in the professional construct, .698 for the three items in the inclusive construct, and .673 for the two items in the modernistic construct. Because all constructs exhibited a reliability within the satisfactory range (Taber, 2018), the 14 items and four constructs were determined to be reliable. The full PDCS instrument was already deemed to be reliable given its professional use of assessing dispositions over a long period of time at the university level.

#### 4.4.4 Measures of Variance

A mean was found for each construct as well as all leadership domain items and all items on the PDCS. The means for each construct were: collaborative ( $M = 4.65$ ,  $SD = .409$ ), professional ( $M = 4.73$ ,  $SD = .377$ ), inclusive ( $M = 4.72$ ,  $SD = .374$ ), and modernistic ( $M = 4.35$ ,  $SD = .634$ ). The scores for all leadership dispositions yielded a mean score of 4.64 ( $SD = .348$ ), and the mean score for all dispositions was 4.622 ( $SD = .312$ ).

### 4.5 Findings

The overarching research question for this study was: How can the PDCS be used to identify future education leaders? The specific research questions are:

Research Question 1: Is there a significant difference between the self-reported dispositions of traditional certification preservice teachers and alternative certification preservice teachers?

- ( $H_0$ ) There is no significant difference between the self-reported dispositions of traditional certification preservice teachers and alternative certification preservice teachers.

To test the differences of the self-reported disposition scores of the traditional and alternative certification candidates, a Mann Whitney U was used to examine scores from the entire PDCS instrument, the abridged instrument, the collaborative construct, the professional construct, the inclusive construct, and the modernistic construct. A Mann Whitney U was appropriate to investigate any differences since the two groups have an unequal distribution ( $n = 128$ ;  $n = 34$ ).



A significant difference ( $U = 1608$ ,  $p = .009$ ) was found for the inclusive construct scores indicating that alternative certification candidates ( $M = 4.86$ ,  $SD = .286$ ) scored significantly higher in this construct than traditional certification candidates ( $M = 4.69$ ,  $SD = .387$ ). Therefore, the null hypothesis is rejected. There were no significant differences between groups for the entire PDCS instrument, the abridged instrument, the collaborative construct, professional construct, modernistic construct.

To further examine any differences between certification types, the sample was restricted based on the self-reported aspirations for a leadership position. Only candidates who answered yes to aspiring for a leadership position at any time in the future were used. Again, the Mann Whitney U was the appropriate measure because the sample sizes for these two groups were unbalanced ( $n = 56$ ;  $n = 22$ ) and violate the assumptions of an independent t-test.

The results showed a significant difference for all scores for on the PDCS ( $U = 388$ ,  $p = .011$ ) indicating alternative certification candidates with aspirations for leadership scored significantly higher ( $M = 4.70$ ,  $SD = .244$ ) than traditional certification candidates ( $M = 4.59$ ,  $SD = .326$ ).

Alternative certification candidates ( $M = 4.74$ ,  $SD = .240$ ) scored higher than traditional certification candidates ( $4.62$ ,  $SD = .369$ ) on the abridged instrument containing the 14 leadership dispositions ( $U = 434$ ,  $p = .04$ ).

The two groups were found to be significantly different in the collaborative construct ( $U = 394$ ,  $p = .01$ ) with alternative certification ( $M = 4.69$ ,  $SD = .376$ ) scoring higher than traditional certification candidates ( $M = 4.64$ ,  $SD = .418$ ).

Significance was indicated in the inclusive construct ( $U = 384$ ,  $p = .006$ ) with alternative certification candidates ( $M = 4.86$ ,  $SD = .286$ ) scoring higher than traditional certification ( $M = 4.69$ ,  $SD = .387$ ).

Alternative certification candidates ( $M = 4.47$ ,  $SD = .590$ ) also scored significantly higher ( $U = 446$ ,  $p = .045$ ) in the modernistic construct than traditional certification candidates ( $M = 4.31$ ,  $SD = .653$ ).

The null hypothesis is rejected since the findings indicate there is a significant difference between traditional and alternative certification candidates who aspire for leadership positions. There was significance in all areas but the professional construct.

The process was repeated for candidates that answered no to leadership aspirations. A Mann Whitney U found there were no significant differences between the disposition scores of traditional certification candidates who do not aspire for education leadership ( $n = 72$ ) and alternative certification candidates who do not aspire for education leadership ( $n = 12$ ). The findings were not statistically significant for all factors tested. Therefore, the null hypothesis is retained.

Research Question 2: What relationship, if any, is there between the fourteen leadership domain dispositions that form the abridged research instrument and the leadership aspirations of teacher candidates?

- ( $H_0$ ) There is no significant relationship between the dispositions of preservice teachers and their leadership aspirations.

A Pearson product-moment correlation coefficient test was performed to find the correlation between leadership dispositions and aspirations for leadership. Because the dispositions will be tested on the mean of scores for each factor and the yes (1)/no (2)

answers for leadership aspirations, the Pearson  $r$  is appropriate when finding the relationship between interval and nominal data. The null hypothesis is rejected. Results of the Pearson correlation indicated that there was a significant positive low association between aspirations for leadership and scores on the inclusive construct ( $r(161) = 0.171$ ,  $p = 0.03$ ) and a significant negative low association between aspirations for leadership and scores on the modernistic construct ( $r(161) = -0.196$ ,  $p = 0.012$ ). There was not a significant relationship between aspirations for leadership and the scores on the collaborative construct, professional construct, abridged instrument, or full instrument.

To investigate further, the Pearson correlation coefficient was used to find any correlation between leadership dispositions and the time period of leadership position aspirations. Again, the dispositions will be tested according to participants' mean disposition scores and the time period that participants indicated they wish to enter education leadership; therefore, the Pearson correlation is appropriate. Time periods of leadership aspiration were 1-5 years (coded 1), 6-10 years (coded 2), 11-15 years (coded 3), and 16+ years (coded 4). Results of the Pearson correlation indicated that there was a significant negative moderate association between time period of leadership aspirations and the collaborative construct ( $r(77) = -0.331$ ,  $p = 0.003$ ), and a significant negative low association between time period of leadership aspirations and the professional construct ( $r(77) = -0.243$ ,  $p = .032$ ), the abridged leadership instrument items ( $r(77) = -0.239$ ,  $p = .035$ ), and all answers on the PDCS ( $r(77) = -0.280$ ,  $p = 0.013$ ). There were no significant relationships found for the inclusive construct and modernistic construct when compared to the time period of leadership aspirations.

Research Question 3: Can age, gender, race, certification pathway, certification area, or the leadership dispositions of the collaborative, professional, inclusive, or modernistic constructs influence the leadership aspirations of preservice teachers?

- (H<sub>0</sub>) There are no factors that significantly influence the leadership aspirations of preservice teachers. The regression coefficient is equal to 0.

A binary logistic regression was employed to locate factors that influence the leadership aspirations of teacher candidates. The initial binary logistic regression included the variables of age, gender, race, certification type, certification area and the leadership constructs developed from the factor analysis: the collaborative construct, professional construct, inclusive construct, and the modernistic construct. For this test, participants who did not indicate their gender were excluded.

Statistical significance was indicated at Step 1 of the regression. However, the Hosmer and Lemeshow test indicated that the model could not fit the data ( $X^2 (7, N = 160) = 17.244, p = .016$ ). Using the subtractive method of eliminating factors, the age range variable was removed to develop a better fit. The binary logistic regression was repeated without age, and significance was found, again at Step 1. However, the Hosmer and Lemeshow test indicated that the model could not fit ( $X^2 (8, N = 160) = 23.37, p = .003$ ). Continuing to use the subtractive method of eliminating factors, race was removed due to each level demonstrating non-significance ( $p > 0.9$ ).

The binary logistic regression was repeated with the factors of gender, certification type, certification area, collaborative construct, professional construct,

inclusive construct, and modernistic construct. Significance was indicated at Step 1 of the regression ( $X^2(18, N=160) = 65.24, p < .001$ ) explaining 44.7% of the variance in predictor variables. Testing the fit of the model relative to the fit of the null model, the Hosmer and Lemeshow goodness of fit test indicates that the model fits the data significantly better than the null model. The predictive model was able to correctly classify 69.2% of candidates with aspirations for leadership and 82.9% of those without aspirations for leadership, for an overall success rate of 76.3%.

Results of the binary logistic regression indicated that the inclusive construct, the modernistic construct, gender, and certification pathway, play a significant role in influencing leadership aspirations. The resulting equation (see Equation 1) predicts leadership aspiration from the independent variables.

$$\log(p/1 - p) = -6.506 + 2.136 * \text{gender} - 1.488 * \text{certification type} + 3.118 * \text{inclusive} - 1.689 * \text{modernistic} \quad (1)$$

This study examined differences between the self-reported dispositions of traditional certification candidates and alternative certification teachers and investigated factors that influence aspirations to enter educational leadership. By detailing the results of the study and its participants, the overarching research question was addressed. Collectively, the three aforementioned research questions determined that the PDCS can be used to identify potential education leaders.

## **CHAPTER 5**

### **DISCUSSION**

The purpose of this study was to examine the dispositional differences of traditional certification candidates and alternative certification candidates at the close of their clinical residencies, investigate any relationship between dispositions and leadership aspirations for the two groups, and identify any other variables that may influence leadership aspirations. Disposition research has been a popular topic among researchers, but most research to date focused on the conceptualization of dispositions, assessment procedures, and malleability. Few studies have attempted to find tangible uses for the data collected on teacher candidates, and lapse in the literature exists in linking teacher candidate dispositions to leadership. This information needed to be identified.

It was determined that self-reported dispositions by teacher candidates at the end of their clinical residencies would give the most realistic snapshot of their perceived self-efficacy before stepping into the classroom fulltime. The PDCS was chosen in order to gauge if any additional benefits can come from instruments already in use. The Delphi method confirmed a link between candidate dispositions and leadership standards, and an exploratory factor analysis paired dispositions with no outliers.

## 5.1 Leadership Instrument Validation

The Delphi study was used to identify dispositions that fall within the leadership domain. To ensure reliability, ten experts were chosen (Murry & Hammons, 1995) based on their knowledge of teacher preparation programs and their experience in teaching education methods at the undergraduate and graduate level. The first round of the Delphi method found and confirmed 14 dispositions that align with building-level NELP standards.

An *a priori* consensus was set at 80% (Bush & Jones, 2010; Hanafin, 2004; Van de Ven & Delbecq, 1974) with a predetermined mean value of 4.0 for each item. Based on a 5-point Likert scale, variables that reached a mean of 4.0 indicated agreement. In Round 1 of the Delphi study, consensus was obtained above 80% for each item and a mean above 4.0 was also obtained. These 14 dispositions made up an abridged disposition instrument used throughout this study. Validated by the Delphi process, the dispositions were found to be reliable presenting a Cronbach's alpha of .892, suggesting that the items have a relatively high internal consistency. Use of the Delphi method found that a link exists between the measured dispositions of teacher candidates and the expectations of future education leaders.

## 5.2 The Factorial Analysis

An exploratory factorial analysis was performed on the 162 valid responses. Participants were teacher candidates who were completing their clinical residencies and were soon to receive a teaching certification. Upon review of the initial eigenvalues and scree plot (see Figure 1) and in keeping with the Kaiser Rule (Kaiser, 1960), it was determined that the analysis located four related factors from the 14 items that the Delphi

panelists determined were in the leadership domain. The four grouped factors were the collaborative construct, professional construct, inclusive construct, and modernistic construct (see Table 4.8).

The first three constructs support the naming of the InTASC standards (CCSSO, 2013) qualities associated with collaboration, professionalism, and inclusivity.

Additionally, the Delphi results support Cummins and Asempapa (2013), who found that possessing the qualities of collaboration, inclusiveness, and professionalism was critical to success as a teacher. Moreover, Masunaga and Lewis (2011) identified collaboration as a key disposition. Martin (2009) assessed dispositions of building-level leaders through the lens of, among others, professional and work habits, and Thompson (2013) argued that multicultural awareness should be considered when discussing teacher education training.

However, the modernistic construct was found to be unique to this study and was not readily found as a component of educational leadership dispositions in the literature. The modernistic construct involved two dispositions that imply the use of modern practices in administration. Modernistic teachers and leaders readily embrace new technologies and approaches to effectively respond to the needs of all learners.

### **5.3 Research Question 1**

To address Research Question 1, Is there a significant difference between the self-reported dispositions of traditional certification preservice teachers and alternative certification preservice teachers?, a Mann Whitney U test was performed on each of the constructs discovered by the factor analysis. The test was repeated for the abridged



leadership instrument and the PDCS instrument as a whole. The Mann Whitney U was used due to the uneven sample sizes of the groups.

A significant difference ( $p = .009$ ) was found for the inclusive construct indicating that alternative certification candidates scored significantly higher in this construct than traditional certification candidates.

Then, the test was repeated to investigate differences between traditional and alternative certification candidates who aspire for administrative positions and those who do not aspire for administrative positions. Of the candidates who aspire to enter educational administration, alternative certification candidates scored significantly higher than traditional certification candidates in the collaborative ( $p = .01$ ), inclusive ( $p = .006$ ), and modernistic constructs ( $p = .045$ ). Alternative certification candidates who aspire for leadership positions also scored themselves higher on the disposition instrument as a whole and on all leadership dispositions as a whole.

There were no significant differences found for those who do not aspire to leadership positions. Traditional and alternative certification candidates who do not aspire to enter leadership positions self-reported dispositions similarly in all areas.

#### **5.4 Research Question 2**

A Pearson product-moment correlation coefficient test was performed to address Research Question 2, What relationship, if any, is there between the fourteen leadership domain dispositions that form the abridged research instrument and the leadership aspirations of teacher candidates? Results of the tests indicated that there was a significant positive low association between aspirations for leadership and scores on the inclusive construct ( $r(161) = 0.171, p = 0.03$ ). With an answer of *yes* to aspiration of

leadership coded as 1 and *no* coded as 2, this finding indicates that participants who do not aspire to leadership are likely to feel they exhibit the qualities found within the inclusive construct more so than those who aspire to leadership.

Also of significance was the negative low association between aspirations for leadership and scores on the modernistic construct ( $r(161) = -0.196$ ,  $p = 0.012$ ). This finding indicates that participants who aspire to leadership positions value modern practices and latest education trends more highly than those who do not aspire to leadership positions.

The Pearson correlation coefficient was then used to find any correlation between leadership dispositions and the time period of leadership position aspirations. Results of the tests indicated that there was a significant negative moderate association between time period of leadership aspirations and the collaborative construct ( $r(77) = -0.331$ ,  $p = 0.003$ ), and a significant negative low association between time period of leadership aspirations and the professional construct ( $r(77) = -0.243$ ,  $p = .032$ ), the abridged leadership instrument items ( $r(77) = -0.239$ ,  $p = .035$ ), and all answers on the PDCS ( $r(77) = -0.280$ ,  $p = 0.013$ ).

Because time periods of leadership aspiration were coded 1-5 years (1), 6-10 years (2), 11-15 years (3), and 16+ years (4), a negative correlation indicates that as the time period of leadership aspirations increased, scores in the collaborative and professional constructs as well as all leadership dispositions decreased. The same was found for scores on all items in the PDCS. Therefore, teacher candidates who aspire for leadership at sooner intervals self-reported higher disposition scores as a whole and in the

leadership domain as a whole but specifically in the collaborative and professional constructs.

### **5.5 Research Question 3**

A binary logistic regression was employed to address Research Question 3, Can age, gender, race, certification pathway, certification area, or the leadership dispositions of the collaborative, professional, inclusive, or modernistic constructs influence the leadership aspirations of preservice teachers? The resulting predictive model was able to correctly classify 69.2% of candidates with aspirations for leadership and 82.9% of those without aspirations for leadership, for an overall success rate of 76.3%. The inclusive construct, the modernistic construct, gender, and certification pathway were found to play a significant role in influencing aspirations for educational leadership.

Of no significance were ethnicity, age, licensure area, collaborative construct, and the professionalism construct. In part, this finding supports that of Lenarz (2020), who tested the leadership aspirations of preservice teachers and found no correlation between licensure area and leadership behaviors, opportunities, or aspirations.

The collaborative construct, which involves the qualities present in collaboration, were not found to be a significant factor. This finding contradicts that of Wasonga and Murphy (2007) who named collaboration as one of eight factors that create leadership and of Martin (2009) who named cooperation and collaboration as strengths of educational administration candidates.

The professional construct was also found to be of no significance in predicting leadership aspirations. According to Cummins and Asempapa (2013), choosing education as a career may indicate that a teacher candidate is already pre-disposed toward

the professional nature of teaching. Further, in their study, they found that students entered candidacy already exhibiting higher levels of knowledge and understanding of professionalism over the other areas (collaboration and inclusion). While growth occurred in all three areas during candidacy, Cummins and Asempapa found the growth to be statistically insignificant. It is possible that candidates in this study, already pre-disposed to some level of professionalism, did not demonstrate enough difference between the leadership aspiration groups to show significance.

## **5.6 Implications**

### **5.6.1 The Importance of Consistency**

A common theme throughout the literature and within the findings of this study is the need for consistency when defining and assessing dispositions. While varying interpretations emerged, a common thread is that self-assessments at the end of clinical residency, paired with observed behaviors by mentor teachers, offers the most realistic snapshot of a candidate's dispositions at the time of initial placement. As Kang (2005) indicated, self-efficacy is not context free and is dependent on the situation. This study has found that self-reported dispositions are appropriate measures of self-efficacy, yet observations from more experienced teachers offer the necessary context to gauge appropriateness.

The collaborative, professional, and inclusive constructs identified in this study coincide with standards (CCSSO, 2013) and empirical studies (Cummins & Asempapa, 2013; Masunaga & Lewis, 2011; Martin, 2009; Thompson, 2013). Paired with the modernistic construct, these components were found to be a valid and reliable set of dispositions that identify leadership traits within teacher candidates.

### **5.6.2 The Importance of Incorporating Modern Practices**

A core pillar of No Child Left Behind is the belief that all students can learn. The modernistic construct expands on this concept to incorporate the use of technology to consistently respond to the needs of all learners. This exemplifies a modern approach to teaching, one that captures and holds the attention of learners and incorporates appropriate aids to facilitate the transfer of knowledge both as a teacher and as an administrator. This study found that participants who aspire to leadership positions rated the dispositions in the modernistic construct more highly than those who do not aspire to leadership positions.

Bulman and Fairlie (2016) stated that investment in computer hardware, software, and connectivity may offset other inputs that affect student achievement in the context of the household and school. Future teachers who readily embrace updated technologies are likely to fully explore new content delivery methods and interventions and engage students in ways that traditional methods cannot (Cuban, 2001). As a leadership trait, the modernistic construct can be useful to identifying forward thinkers and more efficient workers. High scorers in the modernistic construct make school systems' investment in technology more worthwhile.

The modernistic construct calls for a motivation to explore the link between learning and technology. According to the United Nations Educational, Scientific, and Cultural Organization (UNESCO), information and communications technology (ICT) can complement, enrich, and transform education for the better (UNESCO, 2019).

It is the modernistic construct includes the disposition to utilize the latest technologies in the workplace. As an example, it is modernistic construct and the charge

to incorporate innovative new methods that may have given way to the rise in exploratory ICT-based practices such as gamification, an educational methodology that gained global popularity in the early 2010s (Majuri et al., 2018). Gamification is the process of incorporating game design and gameful experiences in the learning process which have been found to increase commitment and motivation in active learning amongst students (Dichev & Dicheva, 2017; Linehan et al., 2011), thus leading to the improvement of knowledge, behavior, and skills (Holman et al, 2013; Huang & Soman, 2013; Majuri et al., 2018). More modernistic approaches like this will bridge the digital interests of learners and their instructional necessity. The modernistic construct is a key component in recognizing effective education leaders who will find and utilize innovative ways to deliver instruction to meet the needs of all students.

### **5.7 Delimitations and Limitations**

The purposeful sampling delimited participants to candidates completing a clinical residency with one of nine schools in the University of Louisiana System, all of which have teacher preparation programs that assess, monitor, and teach candidates knowledge, skills, and professional dispositions as part of accreditation standards (CAEP, 2019). The sample did not include candidates that were completing non-IHE alternative programs, of which Louisiana has eight (USDOE, 2020). Combined with the number of alternative certification candidates in the state (45.19%), only receiving feedback from IHE candidates further limited the number of alternative certification candidates that participated in this study.

Potential limitations of the study involve the number of and diversity of participants. In all, nine universities were used for this study, and this group, all studying

in Louisiana, may not generalize to other groups in other states. A common theme when speaking with representative for each institution was that response rates have traditionally been very low since most of the universities involved are not research institutions that have student bodies familiar with research studies. This may have further limited the number of participants. Though the PDCS has been in use by one institution for several years, the number of items on the instrument may have hindered completion. The time administered and the time required to complete the instrument may, ultimately, have been a limitation of the study.

### **5.7.1 Geography**

The purposive sampling of this study requested participants within the State of Louisiana. While the nine schools in the University of Louisiana System are categorized as regional institutions, the survey responses were collected anonymously. Therefore, there is no way to verify that respondents were evenly distributed throughout the state. This limits generalizability to the state, south, and country.

### **5.7.2 Time**

This study was limited by time. Participation was collected over several cohorts during 2019 and 2020, and the self-reported instrument offered only a snapshot of the dispositions for teacher candidates completing a clinical residency. Though the time for which these data were collected gave the most realistic portrait of self-efficacy during candidacy, as Thornton (2013) purported, it is important to investigate what happens to these dispositions once novice teachers enter the real world of teaching.

### **5.7.3 Gender**

While participants of this study were found to be in line with enrollment trends of teacher preparation programs (Yin & Partelow, 2020), the lack of male responses hindered the validity of differences based on gender. Only 12.3% of respondents identified as male. Additionally, two participants (1.2%) indicated that they did not wish to declare a gender, which is in line with national data (Yin & Partelow, 2020). This study was limited based on gender.

### **5.7.4 Ethnicity**

There are limitations due to ethnicity. As demonstrated in Table 4.1, 88.89% (n=144) of all respondents identified as Caucasian or White. A much higher percentage of non-white candidates responded from the alternative certification pathway, with all respondents who identified as African American or Black being present in that group. This corresponds with national data presented by Yin and Partelow (2020) that alternative certification programs enroll a higher percentage of students of color. The highest enrollment of African American or Black candidates is found in non-IHE alternative certification programs, of which were not included in this study.

### **5.7.5 Age Group**

There are limitations concerning age group. While most respondents were found to be in the 20-24 age group, this is to be expected since the majority of responses came from traditional certification programs. While the data demonstrated that there was some variance between age groups, it was not enough to show any significance.



## 5.8 Recommendation for Future Research

With greater participation from under-represented groups more understanding of the leadership dispositions between certification completers can be realized. The Delphi test and exploratory factor analysis found that leadership dispositions do exist during the time of candidacy. With more data, the collaborative, professional, inclusive, and modernistic constructs can be examined to test generalizability.

It is suggested that the study be repeated using only the 14 dispositions identified as being important to leadership. Lowering the number of items on the survey may increase participation.

Additionally, considerations should be given to the addition of a qualitative component. A mixed-methods study can be employed to collect open-ended feedback from candidates who aspire to leadership in order to examine dispositional trends within candidates. These trends may be used as additional predictive variables.

This study found that teacher candidates are considering advancement opportunities/leadership positions before ever stepping into classrooms of their own. More research needs to be conducted to examine, with greater accuracy, factors that influence those candidates' aspirations of leadership. Therefore, a greater diversity among subjects is warranted. While participation in this study closely aligned with enrollment trends, a concerted effort for a more diverse participation, specifically in ethnicity and age, would yield a more accurate predictive model than this study allowed. The binary logistic regression left 55.3% of the variance unexplained.

## 5.9 Conclusion

As Carver-Thomas and Darling-Hammond (2017) reported, two-thirds of teachers leave the profession for reasons other than retirement citing, among a number of other reasons, dissatisfactions with the teaching career and lack of opportunities for advancement. The findings of this study indicate that the PDCS can be used to identify future leaders. This affords teacher preparation programs an important use for their disposition assessments and an opportunity to cultivate leadership ability as early as teacher candidacy.

As candidates end their clinical residencies, some are already considering a move to administration before ever stepping into the classroom as fulltime teachers - with alternative certification candidates being more likely to aspire to leadership positions and at earlier intervals than their traditional counterparts (see Tables 4.3 and 4.4). Introducing opportunities for advancement and the appropriate corresponding timeline to engage in professional leadership is a crucial step toward keeping novice teachers engaged in the profession.

This study's resulting equation (see Equation 1) predicts leadership candidates from the independent variables collected in the research instrument. Thus, as candidates' scores increase, so do their potentials to be prime leadership candidates. Not only do these individuals have the dispositions necessary to meet educational leadership standards, but they are likely to exhibit the aspiration and self-efficacy necessary to pursue and successfully complete the opportunity. Program coordinators should earmark these candidates and invite them to future leadership trainings. The national use of this equation will offer an unbiased way to identify future education leaders.

## REFERENCES

- Abell, S., Arbaugh, F., Chval, K., Friedricshen, P., Lannin, J., & Volkmann, M. (2006). *Research on alternative certification: Where do we go from here?* University of Missouri-Columbia.
- Allen, M. B. (2003). *Eight questions on teacher preparation: What does the research say?* Education Commission of the States.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84, 191-215.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. W. H. Freeman and Company.
- Bandura, A., Adams, N. E., Hardy, A. B., & Howells, G. N. (1980). Tests of the generality of self-efficacy theory. *Cognitive Therapy and Research*, 4(1), 39-66.
- Baines, L. A. (2010). The disintegration of teacher preparation. *Educational Horizons*, 88, 152-163.
- Bair, M. A. (2017). Identifying dispositions that matter: Reaching for consensus using a Delphi study. *The Teacher Educator*, 52(3), 222-234.
- Bass, B. M. (1998). *Transformational leadership: Industrial, military, and educational impact*. Lawrence Erlbaum Associates.
- Bennis, W. (2006). Foreword to the twenty-fifth anniversary printing. In D. McGregor, *The human side of enterprise: Annotated edition*. (pp. xv-xx). McGraw Hill.

- Berry, B. (2011, March 1). Teacherpreneurs a more powerful vision for the teaching profession crafting a profession for the future requires identifying and responding to a set of emergent realities that transcends the current debates over teaching. *Phi Delta Kappan*, 92, 28-33.
- Bowe, A., Braam, M., Kirchoff, A., & Lawrenz, F. P. (2011). Comparison of alternative and traditional certification programs in terms of effectiveness in encouraging STEM pre-service teachers to teach in high need schools. *Journal of the National Association for Alternative Certification*, 6, 26-45.
- Bradley, A. P., & Jurchan, J. (2013). Dispositions in teacher education: Complex but comprehensible. *Education*, 3(1), 98-104.
- Bryant, J. E., Escalante, K., & Selva, A. (2017). Promising practices: Building the next generation of school leaders. *Journal of School Administration Research and Development*, 2(1), 32-41.
- Brookhart, S., & Freeman, D. (1992). Characteristics of entering teacher candidates. *Review of Educational Research*, 62(1), 37-60.
- Brouwers, A., & Tomic, W. (2000). A longitudinal study of teacher burnout and perceived self-efficacy in classroom management. *Teaching and Teacher Education*, 16(2), 239-253.
- Brown, G. (2016). Leadership's influence: A case study of an elementary principal's indirect impact on student achievement. *Education*, 137(1), 101-115.
- Brown, M. B., Bolen, L. M., Lassiter, C. L., & Burke, M. M. (2006). Competencies of traditionally prepared and lateral entry teachers: Implications for school administrators. *AASA Journal of Scholarship and Practice*, 3(1), 18-23.

- Bulman, G., & Fairlie, R. W. (2016). Technology and education: Computers, software, and the internet. *Handbook of the Economics of Education*, 5, 239-280.
- Burns, J. M. (1978). *Leadership*. Harper & Row.
- Burns, J. M. (1998). Forward. In J. B. Ciulla, (Ed.). *Ethics, the heart of leadership*. (pp. ix-xii). Quorum.
- Bush, G., & Jones, J. (2010). Exploration to identify professional dispositions of school librarians: A Delphi study. *School Library Research*, 13, 1-29.
- Carlyle, T. (1841). *On heroes, hero-worship and the heroic in history*. James Fraser.
- Carter, L. R. (2021). *The national teacher shortage crisis: Understanding teacher attrition and turnover* (Publication No. 28320105) [Doctoral dissertation, Edgewood College]. ProQuest Dissertations Publishing.
- Carver-Thomas, D., & Darling-Hammond, L. (2017). *Teacher turnover: Why it matters and what we can do about it*. Learning Policy Institute.
- Clotfelter, C. T., Ladd, H. F., & Vigdor, J. L. (2010). Teacher credentials and student achievement in high school: A cross-subject analysis with student fixed effects. *Journal of Human Resources*, 45, 665-681.
- Cochran-Smith, M., McQuillan, P., Michell, K., Terrell, D. G., Barnatt, J., D'Souza, L., Jong, C., Shakman, K., Lam, K., & Gleeson, A. M. (2012). A longitudinal study of teaching practices and early career decisions: A cautionary tale. *American Educational Research Journal*, 49(5), 844-880.

- Constantine, J., Player, D., Silva, T., Hallgren, K., Grider, M., Deke, J., & Warner, E. (2009). *An evaluation of teachers trained through different routes to certification* (NCEE 2009-4043). National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.
- Council of Chief State School Officers. (2013). *InTASC model core teaching standards and learning progressions for teachers 1.0*. Author.
- Council for the Accreditation of Educator Preparation. (2019). *2013 CAEP standards*. <http://caepnet.org/standards/2013/introduction>
- Cuban, L. (2001). *Oversold and underused: Computers in the classroom*. Harvard University Press.
- Cudahy, D., Finnan, C., Jaruszewicz, C., & McCarty, B. (2002, November). *Seeing dispositions: Translating our shared values into observable behavior* [Paper presentation]. First Annual Symposium on Educator Dispositions, Richmond, KY.
- Cummins, L., & Asempapa, B. (2013). Fostering teacher candidate dispositions in teacher education programs. *Journal of The Scholarship of Teaching and Learning, 13*(3), 99-119.
- Decker, P., Mayer, D., & Glazerman, S. (2005). Alternative routes to teaching: The impacts of Teach for America on student achievement and other outcomes. *Journal of Policy Analysis and Management, 25*(1), 75-96.
- Department for Professional Employees. (2019, October 14). *School administrators: An occupational overview*. DPE Research Department. <https://www.dpeaflcio.org/factsheets/school-administrators-an-occupational-overview>

- Dhuey, E., & Smith, J. (2014). How important are school principals in the production of student achievement? *Canadian Journal of Economics*, 47, 643-663.
- Dichev, C., & Dicheva, D. (2017). Gamifying education: What is known, what is believed and what remains uncertain: A critical review. *International Journal of Educational Technology in Higher Education*, 14(9), 1-36.  
<https://doi.org/10.1186/s41239-017-0042-5>
- Dunning, D., Heath, C., & Suls, J. M. (2004). Flawed self-assessment: Implications for health, education and the workplace. *Psychology Science in the Public Interest*, 5(3), 69-106.
- Fahrni, S. T. (2002). *An analysis of the under representation of women in the secondary principalship in Washington State based on chosen career paths* (Publication No. 3034404) [Doctoral dissertation, Gonzaga University]. ProQuest Dissertations Publishing.
- Falzarano, M., & Pinto Zipp, G. (2013). Seeking consensus through the use of the Delphi technique in health sciences research. *Journal of Allied Health*, 42(2), 99-105.
- Fiedler, F. E. (1967). *A theory of leadership effectiveness*. McGraw-Hill.
- Fuller, E., & Young, M. D. (2009, April). *Tenure and retention of newly hired principals in Texas* [Paper presentation]. Annual meeting of the American Educational Research Association, San Diego, CA.
- Galton, F. (1869). *Hereditary genius*. Appleton.
- Garmon, M. A. (2004). Changing preservice teachers' attitudes/beliefs about diversity: What are the critical factors? *Journal of Teacher Education*, 55(3), 201-213.

- Gates, S. M. (2004). *The careers of public school administrators: Policy implications from an analysis of state-level data*. RAND Corporation.  
[https://www.rand.org/pubs/research\\_briefs/RB9054.html](https://www.rand.org/pubs/research_briefs/RB9054.html)
- Green, J., Chirichello, M., Mallory, B., Melton, T., & Lindahl, R. (2011). Assessing leadership dispositions: Issues, challenges, and promising practices. *International Journal of Educational Leadership Preparation*, 6(4), 1-10.
- Griffith, R., & Groulx, J. (2014). Profile for teacher decision making: A closer look at beliefs and practice. *Journal of Research in Education*, 24(2), 103-115.
- Hanafin, S. (2004). *Review of literature on the Delphi technique*. National Children's Office.
- Heinz, M. (2013). Tomorrow's teachers – selecting the best: An exploration of the quality rationale behind academic and experiential selection of criteria for initial teacher education programmes. *Educational Assessment, Evaluation and Accountability*, 25, 93-114.
- Hersey, P., & Blanchard, K. H. (1969). Life cycle theory of leadership. *Training and Development Journal*, 23(5), 26–34.
- Hiller, N. J., & Hambrick, D. C. (2005). Conceptualizing executive hubris: The role of (hyper-) core self-evaluations in strategic decision-making. *Strategic Management Journal*, 26(4), 297-319.
- Hogan, R., & Kaiser, R. B. (2005). What we know about leadership. *Review of General Psychology*, 9, 169-180.
- Holman, C., Aguilar, S., & Fishman, B. (2013). GradeCraft: What can we learn from a game-inspired learning management system? In D. Suthers, K. Verbert, & E.



- Duval (Eds.), *Proceedings from the third international conference on learning analytics and knowledge* (pp. 260-264). Association for Computing Machinery.
- Honawar, V. (2007). Alternative certification programs multiply. *Education Week*, 26(33), 16.
- Huang, W. H. Y., & Soman, D. (2013). *A practitioner's guide to gamification of education*. University of Toronto.  
<https://inside.rotman.utoronto.ca/behaviouraleconomicsinaction/files/2013/09/GuideGamificationEducationDec2013.pdf>
- Ignico, A., & Gammon, K. (2010). A longitudinal study of the professional dispositions of teacher candidates. *Natural Science*, 2(2), 91-94.
- Ingersoll, R. M. (2001). Teacher turnover and teacher shortages: An organizational analysis. *American Educational Research Journal*, 38(3), 499-534.
- Ingersoll, R. M., Merrill, L., & May, H. (2012). Retaining teachers: How preparation matters. *Educational Leadership*, 69(8), 30-34.
- Jarrett, P., Tran, H., & Buckman, D. G. (2018). Do candidates' gender and professional experience influence superintendent selection decisions? *AASA Journal of Scholarship and Practice*, 15(1), 7-21.
- Kaiser, H. F. (1960). The application of electronic computers to factor analysis. *Educational and Psychological Measurement*, 20, 141-151.
- Kang, Y. (2005, May). *Self-efficacy: What to influence and how to influence it* [Paper presentation]. International Communication Association, New York, NY.

- Karges-Bone, L., & Griffin, M. (2009). Do they have the right dispositions? Teacher education in the new conceptual age. *Southeastern Regional Association of Teacher Educators Journal*, 18(2), 27–33.
- Klassen, R. M., & Chiu, M. M. (2010). Effects on teachers' self-efficacy and job satisfaction: Teacher gender, years of experience, and job stress. *Journal of Educational Psychology*, 102(3), 741-756.
- LaCaze, A. T. (2018). *The role of self-efficacy in education leadership: A case study*. [Unpublished manuscript]. Department of Curriculum, Instruction, and Leadership, Louisiana Tech University. <https://www.academia.edu/s/97c5367da2>
- Lenarz, K. (2020). *Leadership preparation of preservice teachers* (Publication No. 128). [Doctoral dissertation, Olivet Nazarene University]. Digital Commons at Olivet. [https://digitalcommons.olivet.edu/edd\\_diss/128/](https://digitalcommons.olivet.edu/edd_diss/128/)
- Lindahl, R. A. (2009). Teaching and assessing dispositions in principal-preparation programs: A conundrum. In C. M. Achilles, B. J. Irby, B. Alford, & G. Perreault (Eds.), *Remember our mission: Making education and schools better for students* (pp. 15-36). Proactive Publications.
- Linehan, C., Kirman, B., Lawson, S., & Chan, G. (2011, May). *Practical, appropriate, empirically-validated guidelines for designing educational games* [Paper presentation]. ACM Annual Conference on Human Factors in Computing Systems, Vancouver, Canada.
- Linstone, H. A., & Turoff, M. (2002). *The Delphi method: Techniques and applications*. New Jersey Institute of Technology.

- Maina, N., & Davila Valencia, J. C. (2019). *Study of school principals in Montgomery County public schools: Exploration of factors associated with turnover and attrition*. Office of Shared Accountability, Montgomery County Public Schools.
- Majuri, J., Koivisto, J., & Hamari, J. (2018, May). *Gamification of education and learning: A review of empirical literature* [Paper presentation]. Second International GamiFIN Conference, Pori, Finland. <http://ceur-ws.org/Vol-2186/paper2.pdf>
- Martin, S. T. (2009). *Relationship between the leadership styles of principals and school culture* (Publication No. 269) [Doctoral dissertation, Georgia Southern University]. Digital Commons. <https://digitalcommons.georgiasouthern.edu/etd/269/>
- Masunaga, H., & Lewis, T. (2011). Self-perceived dispositions that predict challenges during student teaching: A data mining analysis. *Issues in Teacher Education*, 20(1), 35-49.
- McGregor, D. (1957). Human side of enterprise. *Management Review*, 46, 22-28.
- McGregor, D. (1960). *The human side of enterprise*. McGraw-Hill.
- Melton, T. D., Tysinger, D., Mallory, B., & Green, J. (2011). A validation study of the school leader dispositions inventory. *AASA Journal of Scholarship and Practice*, 8(2), 38-50.
- Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation*. Jossey-Bass.
- Miller, A. (2013). Principal turnover and student achievement. *Economics of Education Review*, 36, 60-72.

- Monaghan, C. A. (2010). Management and leadership. In C. Kasworm, A. Rose, & J. Ross-Gordon (Eds.), *Handbook of adult and continuing education* (pp. 177-186). Sage Publications.
- Muijs, D. (2011). *Doing qualitative research in education with SPSS*. (2nd ed.). Sage Publications.
- Murry, Jr., J. W., & Hammons, J. O. (1995). Delphi: A versatile methodology for conducting qualitative research. *The Review of Higher Education*, 18(4), 423-436.
- National Center for Education Statistics. (2013). *Number and percentage distribution of teachers in public and private elementary and secondary schools, by selected teacher characteristics: Selected years, 1987-1988 through 2011-2012*.  
[http://nces.ed.gov/programs/digest/d13/tables/dt13\\_209.10.asp](http://nces.ed.gov/programs/digest/d13/tables/dt13_209.10.asp)
- National Council for Accreditation of Teacher Education. (2008). *Professional standards for the accreditation of teacher preparation institutions*. National Council for Accreditation of Teacher Education.
- National Policy Board for Educational Administration. (2018). *National Educational Leadership Preparation (NELP) program standards - building level*. National Policy Board for Educational Administration.
- Nelson, E., Schroeder, M., & Welpman, L. (2014). Does career maturity impact leadership behavior? *Journal of Leadership, Accountability, and Ethics*, 11(3), 82-96.
- Northouse, P. G. (2004). *Leadership: Theory and practice*. Sage Publications.
- Phelps, P. H. (2008). Helping teachers become leaders. *The Clearing House: A Journal of Educational Strategy, Issues and Ideas*, 81(3), 119-122.

- Rochkind, J., Ott, A., Immerwahr, J., Doble, J., & Johnson, J. (2007). *Lessons learned: New teachers talk about their jobs, challenges and long-range plans. Issue No. 2. Working without a net: How new teachers from three prominent alternate route programs describe their first year on the job.* National Comprehensive Center for Teacher Quality and Public Agenda.
- Sass, T. R. (2011, December 21). *Certification requirements and teacher quality: A comparison of alternative routes to teaching.* (Working Paper No. 64). National Center for Analysis of Longitudinal Data in Education Research, American Institutes for Research.
- Schonfeld, I. S., & Feinman, S. J. (2012). Difficulties of alternatively certified teachers. *Education and Urban Society, 44*(3), 215-246.
- Schussler, D. L., Stooksberry, L. M., & Bercaw, L. A. (2010). Understanding teacher candidate dispositions: Reflecting to build self-awareness. *Journal of Teacher Education, 61*(4), 350-363.
- Seashore Louis, K., Leithwood, K., Wahlstrom, K. L., & Anderson, S. E. (2010). *Learning from Leadership: Investigating the links to improved student learning. Final report of research findings.* The Wallace Foundation.  
<https://www.wallacefoundation.org/knowledge-center/pages/investigating-the-links-to-improved-student-learning.aspx>
- Shoho, A. R., & Martin, N. K. (1999). *A comparison of alienation among alternatively and traditionally certified teachers* [Paper presentation]. American Educational Research Association Annual Meeting, Montreal, Quebec, Canada.

- Shuls, J. V., & Trivitt, J. R. (2015). Teacher effectiveness: An analysis of licensure screens. *Educational Policy*, 29(4), 645-675.
- Skaalvik, E. M., & Skaalvik, S. (2010). Teacher self-efficacy and teacher burnout: A study of relations. *Teaching and Teacher Education*, 26(4), 1059-1069.  
<http://doi.org/10.1016/j.tate.2009.11.001>
- Stake, R. E. (1995). *The art of case study research*. Sage Publications.
- Stewart, J. (2006). Transformational leadership: An evolving concept examined through the works of Burns, Bass, Avolio, and Leithwood. *Canadian Journal of Educational Administration and Policy*, 54, 1-29.
- Stogdill, R. M. (1948). Personal factors associated with leadership: A survey of the literature. *Journal of Psychology*, 25, 35-71.
- Stronge, J. H., Ward, T. J., & Grant, L. W. (2011). What makes good teachers good? A cross-case analysis of the connection between teacher effectiveness and student achievement. *Journal of Teacher Education*, 62(4), 339-355.
- Supovitz, J., Sirinides, P., & May, H. (2010). How principals and peers influence teaching and learning. *Educational Administration Quarterly*, 46, 31-56.
- Sutcher, L., Darling-Hammond, L., & Carver-Thomas, D. (2019). Understanding teacher shortages: An analysis of teacher supply and demand in the United States. *Education Policy Analysis Archives*, 27(35), 1-40.
- Taber, K. S. (2018). The use of Cronbach's alpha when developing and reporting research instruments in science education. *Research in Science Education*, 48, 1273-1296.

- Tastle, W. J., & Wierman, M. J. (2007). Consensus and dissent: A measure of ordinal dispersion. *International Journal of Approximate Reasoning*, 45, 531-545.
- Tschannen-Moran, M., & Hoy, A. W. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education*, 17(1), 783-805.
- Thompson, F. (2013). Multicultural dispositions: A viable tool for teacher training. *International Journal of Humanities and Social Science*, 3(3), 72-84.
- Thornton, H. (2006). Dispositions in action: Do dispositions make a difference in practice? *Teacher Education Quarterly*, 33(2), 53-68.
- Thornton, H. (2013). A case analysis of middle level teacher preparation and long-term teacher dispositions. *Research in Middle Level Education*, 37(3), 1-19.  
<https://doi.org/10.1080/19404476.2013.11462106>
- Tschannen-Moran, M., & Hoy, A. W. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education*, 17, 783-805.
- United Nations Educational, Scientific, and Cultural Organization. (2019). *ICT in education*. <http://en.unesco.org/themes/ict-education>
- Uriegas, B., Kupczynski, L., & Mundy, M. (2014). A comparison of traditional and alternative certification routes on classroom management. *SAGE Open*, 4(4), 1-6.  
<https://doi.org/10.1177/2158244014553599>
- U.S. Department of Education. (2020). *Title II reports: National teacher preparation data*. <https://title2.ed.gov>
- Van de Ven, A. L., & Delbecq, A. H. (1974). The effectiveness of normal, Delphi, and interacting group decision making processes. *Academy of Management Journal*, 17(4), 605-621.

- Wang, V., Bain, B., Hope, J., & Hansman, C. (2017). *Educational leadership and organizational management: Linking theories to practice*. Information Age Publishing.
- Wasonga, T. A., & Murphy, J. (2007). Co-creating leadership dispositions. *International Studies in Educational Administration*, 35(2), 20-31.
- Welch, F. C., Pitts, R. E., Tenini, K. J., Kuenlen, M. G., & Wood, S. G. (2010). Significant issues in defining and assessing teacher dispositions. *Teacher Educator*, 45(3), 179-201. <http://doi.org/10.1080/08878730.2010.489992>
- Wildy, H., & Loudon, W. (2000). School restructuring and the dilemmas of principals' work. *Educational Management & Administration*, 28(2), 173-184.
- Wilkerson, J. (2006). Measuring teacher dispositions: Standards-based or morality-based? *Teachers College Record*, ID Number: 12493.  
<https://www.tcrecord.org/books/Content.asp?ContentID=12493>
- Yao, Y., & Williams, W. (2010). A comparison of three teacher preparation programs in terms of their impact on teacher competencies. *Action in Teacher Education*, 32(3), 15-24.
- Yin, J., & Partelow, L. (2020, December 7). *An overview of the teacher alternative certification sector outside of higher education*. Center for American Progress.  
<https://www.americanprogress.org/issues/education-k-12/reports/2020/12/07/480408/overview-teacher-alternative-certification-sector-outside-higher-education>
- Zaccaro, S. (2007). Trait-based perspectives of leadership. *American Psychologist*, 62(1), 6-16. <https://doi.org/10.1037/0003-066X.62.1.6>



**APPENDIX A**

**DELPHI PAIRING OF DISPOSITIONS AND LEADERSHIP  
STANDARDS**

**Table A.1**

## Delphi Pairing of Dispositions and Leadership Program Standards

<b>Item</b>	<b>Professional Dispositions and Characteristics Scale (PDCS)</b>	<b>Component</b>	<b>National Education Leadership Preparation (NELP) Program Recognition Standards – Building Level, 2018</b>
4	Demonstrates a positive attitude about working with diverse people, peers, professionals, and in diverse environments. (D)	3.3	Program completers understand and demonstrate the capacity to evaluate, cultivate, and advocate for equitable, inclusive, and culturally responsive instruction and behavior support practices among teachers and staff.
12	Interacts with other colleagues, administrators, parents, and other community members with courtesy and civility. (InTASC 10; D)	5.2	Program completers understand and demonstrate the capacity to collaboratively engage and cultivate relationships with diverse community members, partners, and other constituencies for the benefit of school improvement and student development.
13	Acknowledges perspectives of individuals from diverse cultural and experiential backgrounds. (InTASC 10; D)	4.2	Program completers understand and can demonstrate the capacity to evaluate, develop, and implement high-quality and equitable academic and non-academic instructional practices, resources, technologies, and services that support equity, digital literacy, and the school's academic and non-academic systems.
20	Uses sound judgment in decision making. (InTASC 9, 10)	2.2	Program completers understand and demonstrate the capacity to evaluate, communicate about, and advocate for ethical and legal decisions.
21	Values multiple aspects of diversity. (InTASC 2, 9; D)	3.1	Program completers understand and demonstrate the capacity to use data to evaluate, design, cultivate, and advocate for a supportive and inclusive school culture.
24	Consistently exhibits attitude and uses language that indicates high expectation of growth and success for all learners. (D)	3.2	Program completers understand and demonstrate the capacity to evaluate, cultivate, and advocate for equitable access to educational resources, technologies, and opportunities that support the educational success and well-being of each student.
25	Demonstrates positive interactions with peers, professionals, and other personnel.	7.2	Program completers understand and have the capacity to develop and engage staff in a collaborative professional culture designed to promote school improvement, teacher retention, and the success and well-being of each student and adult in the school.

Item	Professional Dispositions and Characteristics Scale (PDCS)	Component	National Education Leadership Preparation (NELP) Program Recognition Standards – Building Level, 2018
26	Consistently responds to the needs of all learners. (D)	6.1	Program completers understand and demonstrate the capacity to evaluate, develop, and implement management, communication, technology, school-level governance, and operation systems that support each student’s learning needs and promote the mission and vision of the school.
33	Communicates effectively, verbally and in written work.	5.3	Program completers understand and demonstrate the capacity to communicate through oral, written, and digital means within the larger organizational, community, and political contexts when advocating for the needs of their school and community.
35	Incorporates technology into professional work. (T)	4.1	Program completers understand and can demonstrate the capacity to evaluate, develop, and implement high-quality, technology-rich curricula programs and other supports for academic and non-academic student programs.
39	Uses appropriate professional and/or content standards. (InTASC 9, 10)	1.1	Program completers understand and demonstrate the capacity to collaboratively evaluate, develop, and communicate a school mission and vision designed to reflect a core set of values and priorities that include data use, technology, equity, diversity, digital citizenship, and community.
40	Continues to seek knowledge and professional development. (InTASC 9, 10)	7.3	Program completers understand and have the capacity to personally engage in, as well as collaboratively engage school staff in, professional learning designed to promote reflection, cultural responsiveness, distributed leadership, digital literacy, school improvement, and student success.
41	Exercises sound judgment and ethical professional behavior. (InTASC 9, 10)	2.3	Program completers understand and demonstrate the capacity to model ethical behavior in their personal conduct and relationships and to cultivate ethical behavior in others.
42	Represents a positive role model for others. (InTASC 9, 10; D)	2.1	Program completers understand and demonstrate the capacity to reflect on, communicate about, cultivate, and model professional dispositions and norms (i.e., fairness, integrity, transparency, trust, digital citizenship, collaboration, perseverance, reflection, lifelong learning) that support the educational success and well-being of each student and adult.

**APPENDIX B**  
**SURVEY INSTRUMENT**

## Teacher Dispositions Supplemental Survey (TDSS)

**Q1:** Please indicate your age range:

**<20, 20-24, 25-30, 31-35, 36-40, 40-44, 45+**

**Q2:** Please indicate your gender:

**Female, Male, Prefer not to say**

**Q3:** Please indicate your ethnicity:

**African American or Black, American Indian or Alaskan Native, Asian, Caucasian or White, Hispanic, Native Hawaiian or Other Pacific Islander, Bi-Racial/Multi-Racial**

**Q4:** Please indicate your certification pathway:

**Certification, Traditional Certification**

**Q5:** Please indicate your certification area/level (check all that apply):

**All-level K12 Certificate, Early Childhood Certificate, Elementary Certificate, Middle School Certificate, Secondary Certificate, Special Education Certificate**

**Q6:** At any time in the future, do you aspire to enter school administration?

**Yes, No**

**Logic Question: Q7:** If yes, please indicate the time period in which you expect to pursue a career in school administration.

**1-5 Years, 6-10 Years, 11-15 Years, 16+ Years**

## **Professional Dispositions and Characteristics Scale (PDCS)**

**Q8:** Next, please think about your behaviors and dispositions during your time of residency/student teaching and indicate how strongly you agree or disagree with each statement. Please choose one rating for each of the following:

**Strongly Disagree, Disagree, Neither Agree or Disagree, Agree, Strongly Agree**

I have exemplary attendance.

I am always on time.

I dress and demonstrate demeanor always appropriate for required professional activities and field experiences.

I demonstrate a positive attitude about working with diverse people, peers, professionals, and in diverse environments.

I am realistically self-assured, and I competently handle the demands of coursework and/or field experiences.

I willingly share ideas, information and materials when working with others.

I work effectively with professional colleagues, parents, and other adults.

I make decisions and act with honesty and integrity.

I demonstrate truthfulness to myself and to others.

I demonstrate professional behavior and trustworthiness.

**Q9:** Secondly, please think about your personal actions during your time of residency/student teaching and indicate how strongly you agree or disagree with each statement. Please choose one rating for each of the following:

**Strongly Disagree, Disagree, Neither Agree or Disagree, Agree, Strongly Agree**

I demonstrate self-respect and respect for others.

I interact with other colleagues, administrators, parents, and other community members with courtesy and civility.

I acknowledge the perspectives of individuals from diverse cultural and experiential backgrounds.

I accept consequences for personal actions or decisions.

I meet all task/assignments in a timely fashion.

I prepare well for activities, meetings, and group work.

I manage time effectively.

I seek clarification and/or assistance as needed.

I ensure accuracy of information for which I am responsible.

I use sound judgment in decision making.

**Q10:** Now, please think about your professional dispositions during your time of residency/student teaching and indicate how strongly you agree or disagree with each statement. Please choose one rating for each of the following:

**Strongly Disagree, Disagree, Neither Agree or Disagree, Agree, Strongly Agree**

I value multiple aspects of diversity.

I respect children and adults of various cultural backgrounds, ethnicities, religions, sexual orientations, social classes, abilities, political beliefs, etc.

I demonstrate passion/enthusiasm about learning and teaching.

I consistently exhibit attitude and use language that indicates high expectation of growth and success for all learners.

I demonstrate positive interactions with peers, professionals, and other personnel.

I consistently respond to the needs of all learners.

I analyze problems critically and attempt to resolve them independently (as appropriate).

I respond to unforeseen circumstances in an appropriate manner and modify my actions or plans when necessary.

I use appropriate tone of voice.

I initiate communication to resolve conflict.



**Q11:** Lastly, please reflect on your demonstrated dispositions during your time of residency/student teaching and indicate how strongly you agree or disagree with each statement. Please choose one rating for each of the following:

**Strongly Disagree, Disagree, Neither Agree or Disagree, Agree, Strongly Agree**

I accept feedback from others.

I identify personal responsibility in conflict/problem situations.

I communicate effectively, verbally and in written work.

I routinely model standard English in professional settings.

I incorporate technology into professional work.

I work effectively with limited or no supervision.

I go beyond what is expected.

I evaluate and reflects on my own experience and work.

I use appropriate professional and/or content standards.

I continue to seek knowledge and professional development.

I exercise sound judgment and ethical professional behavior.

I represent a positive role model for others.

**APPENDIX C**  
**HUMAN USE APPROVAL LETTER**



LOUISIANA TECH  
UNIVERSITY

MEMORANDUM

OFFICE OF SPONSORED PROJECTS

TO: Mr. Anthony Thorn LaCaze and Dr. Dustin Hebert

FROM: Dr. Richard Kordal, Director of Intellectual Property & Commercialization  
(OIPC)  
[rkordal@latech.edu](mailto:rkordal@latech.edu) *RK*

SUBJECT: HUMAN USE COMMITTEE REVIEW

DATE: December 29, 2019

In order to facilitate your project, an EXPEDITED REVIEW has been done for your proposed study entitled:

**“The Dispositions of Preservice Teachers: A Look into Leadership Aspirations”**

**HUC 19-101 REVISED  
(Add Participants from other Universities)**

The proposed study's revised procedures were found to provide reasonable and adequate safeguards against possible risks involving human subjects. The information to be collected may be personal in nature or implication. Therefore, diligent care needs to be taken to protect the privacy of the participants and to assure that the data are kept confidential. Informed consent is a critical part of the research process. The subjects must be informed that their participation is voluntary. It is important that consent materials be presented in a language understandable to every participant. If you have participants in your study whose first language is not English, be sure that informed consent materials are adequately explained or translated. Since your reviewed project appears to do no damage to the participants, the Human Use Committee grants approval of the involvement of human subjects as outlined.

Projects should be renewed annually. *This approval was finalized on April 30, 2019 and this project will need to receive a continuation review by the IRB if the project continues beyond April 30, 2020. ANY CHANGES* to your protocol procedures, including minor changes, should be reported immediately to the IRB for approval before implementation. Projects involving NIH funds require annual education training to be documented. For more information regarding this, contact the Office of Sponsored Projects.

You are requested to maintain written records of your procedures, data collected, and subjects involved. These records will need to be available upon request during the conduct of the study and retained by the university for three years after the conclusion of the study. If changes occur in recruiting of subjects, informed consent process or in your research protocol, or if unanticipated problems should arise it is the Researchers responsibility to notify the Office of Sponsored Projects or IRB in writing. The project should be discontinued until modifications can be reviewed and approved.

Please be aware that you are responsible for reporting any adverse events or unanticipated problems.

A MEMBER OF THE UNIVERSITY OF LOUISIANA SYSTEM

P.O. BOX 3092 • RUSTON, LA 71272 • TEL: (318) 257-5075 • FAX: (318) 257-5079

AN EQUAL OPPORTUNITY UNIVERSITY