

**Strengths-Based Leadership Skills of Doctoral Degree Candidates**

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## **Abstract**

The purpose of this study was to determine the extent to which University X doctoral candidates reflect on their five signature strengths when making decisions about situations related to the Interstate School Leaders Licensure Consortium (ISLLC) Professional Standards for Educational Leadership. Second, the study looked at the potential impact of time as it relates to leaders' reflection on their five signature strengths when making decisions related to the ISLLC Standards. A third purpose was to determine if demographic variables (age, current profession, and gender) impact leaders' reflection on their five signature strengths when making decisions. This quantitative study included doctoral candidates from an Educational Leadership program at University X. Twenty-three one sample *t* tests indicated doctoral candidates' reflect on their signature strengths sometimes or often. The results from twenty-three hypothesis tests, each using a one-factor analysis of variance (ANOVA), indicated that time does not impact the frequency of doctoral candidates' reflections. To address the demographic variables of age and current profession, twenty-three ANOVAs were conducted. The results indicated that age and current profession do not impact the frequency of doctoral candidates' reflections. Twenty-three two sample *t* tests indicated that gender does not impact doctoral candidates' reflections. The research supports that doctoral candidates reflect on their five signature strengths when making leadership decisions. Additionally, the research supports that time and demographics do not impact candidate reflections.

## **Dedication**

This work is dedicated to my husband, Dan; our daughter, Madeline; my grandparents, Joe and Claire Hogarty; and my parents, Ralph and Maureen Befort. The tremendous support that I have received has made the dissertation journey possible to complete.

Dan, I thank you for your patience as I worked to complete this research. Your continued support has meant a great deal. I do not think I would have persevered without your encouragement.

Madeline, you have been a great inspiration to me since the day you were born. I want nothing more than to set a good example for you. I hope you learn to value hard work and knowledge, and continually set high expectations for yourself. I believe that any goal you set is one you can achieve, if you are willing to work for it.

Grandpa Joe and Grandma Claire, thank you for investing in my education since 1981. I have had the good fortune to pursue higher education and I recognize that would not be possible without your support. I am grateful that you have encouraged me, challenged me, and most importantly, believed in me.

To my parents, I thank you for setting high expectations for me and modeling those expectations throughout my childhood. You have continuously articulated your belief that I could succeed at anything I chose to embark upon. I do not think that I would have had the courage to pursue a doctoral degree without your support.

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## **Chapter One**

### **Introduction**

Leadership is the act of leaders inducing followers to act for certain goals that represent the values and motivation – the wants and the needs, the aspirations and expectations – of both leaders and followers (Burns, 1978). According to Northouse (2004), leadership is “a process by which an individual influences a group of individuals to achieve a common goal” (p. 4). The term leadership has many different definitions. Authors have examined aspects of leadership as they relate human services organizations, such as education, and contributed to the body of definitions that exist for the term. Leadership continues to be studied. According to Packard (2004):

While the concept [of leadership] has been extensively studied, there is still much to be discovered regarding how leadership affects variables such as organizational culture, climate, and performance. Most of the research on leadership has been in for-profit organizations. While research on leadership in human services organizations is increasing, there is still a limited knowledge to guide practice. (p. 143)

Authors in human services organizations, such as education, have asserted a variety of qualities, characteristics, and actions that an individual should possess or implement in order to be an effective leader. For example, Elmore (2000) promoted a distributive style of leadership wherein teachers should be instructional leaders, focusing on curriculum, instruction, and assessment. According to Elmore (2000), the school principal must distribute leadership within the school to provide all functions of leadership within the organization. Buckingham and Clifton (2001) focused their

research on “strengths-based” leadership; a style of management that promotes quality leadership by identifying individuals’ strengths and capitalizing on these strengths to accomplish organizational goals and award promotions. Collins (2001) researched leadership and identified a set of characteristics that distinguish an individual as either a ‘good’ or ‘great’ leader. Collins (2001) stated that a ‘great’ leader is focused on the organization, blends personal humility with intense personal will, and demonstrates a strong commitment to the organization. Heifetz and Linsky (2002) promoted situational leadership. Heifetz and Linsky (2002) asserted that leaders need to adapt their leadership style based on specific situations in order to be effective leaders. Block (2003) described effective leadership as being the act of effective questioning. Bennis (2003) noted that quality leadership places a focus on the future through the development of a shared vision. Authors have indicated a variety of qualities, personal characteristics, and actions that contribute to effective leadership in education. In education, the goal of effective leadership is to positively impact student achievement.

The results from a 1998 study by Mid-continent Research for Education and Learning (McREL) verified the correlation between the quality of leadership and student achievement. Marzano, Waters, and McNulty (2005) stated:

The data from our meta-analysis demonstrates that there is, in fact, a substantial relationship between leadership and student achievement. We found that the average effect size (expressed as a correlation) between leadership and student achievement is .25, which means that as leadership improves so does student achievement. (p. 10)

Researchers in education are finding that leadership affects an organization (Marzano et al., 2005). As Packard (2004) stated, “leadership is commonly seen as an important variable affecting organizational performance” (p. 143). Leaders who recognize this statement to be true will find research to assist in the development as an effective leader. Researchers, policymakers, and practitioners increasingly recognize the role of school leaders in developing high-performing schools. With a national focus on raising achievement for all students, there has been growing attention to the pivotal role of school leaders in improving the quality of education (Darling-Hammond, LaPointe, Meyerson, Orr, & Cohen, 2007). Today’s educators are seeking opportunities to develop as leaders in their field, focusing on the qualities, characteristics, and actions of effective leaders.

In 2001, Buckingham and Clifton, researchers with the Gallup Corporation, identified 34 signature “talents” or “strengths” that individuals might possess. Through the use of a typology instrument known as the Clifton StrengthsFinder®, individuals can participate in an assessment that attempts to identify a person’s top five “talents” or “strengths” (Rath, 2007). The research in strengths-based leadership has provided evidence that individuals who focus their energies into developing their natural talents will positively affect their organizational performance (Rath, 2007). Buckingham and Clifton (2001) suggested that leaders should spend a great deal of time focusing on developing and utilizing their strengths to promote employee engagement and productivity. In the field of education, leaders could utilize their signature strengths to positively affect the performance of their schools (Professor A, personal communication, July 24, 2014).

## **Background of Study**

The Gallup Corporation has studied human nature and behavior for 75 years. To conduct research, Gallup employs scientists in the fields of management, economics, psychology, and sociology (Gallup Corporation, 2014). These scientists have designed measurement tools, coursework, and advisory services to help organizations boost employee engagement and maximize employee productivity.

The Gallup Corporation has developed tools, coursework, and advisory services to the PK – 12 educational community. For example, the Gallup TeacherInsight instrument is a tool available to school districts seeking to learn more about potential hires (Gallup Corporation, 2014). Gallup scientists have conducted research aimed at improving teacher effectiveness, school leadership development, and student success (Gallup Corporation, 2014). Their research has indicated the best method for improving student achievement is to utilize the following interventions: Principal Insight, Teacher Insight, Support Insight, School Engagement, and Strengths-Based Development (Gallup Corporation, 2014). According to Gallup (2014), these interventions measure the human capital within the school district and the larger community. Such measures are linked to proven processes for improvement and success for individual school districts.

The specific intervention of Strengths-Based Development began as a study of employee engagement (Rath, 2007). In 1998, a team of scientists at the Gallup Corporation conducted an engagement study that included 198,000 employees working in 7,939 business units within 36 companies (Gallup Corporation, 2014). Rath (2007) shared that these employees were asked to rate the degree to which they agreed with the following statement: At work, I have the opportunity to do what I do best every day.

Employees that responded “strongly agree” were more likely to work in business units with low turnover, high productivity, and high customer satisfaction. The results of this study led to the creation of an online assessment, StrengthsFinder 1.0 (Rath, 2007).

The Clifton StrengthsFinder 1.0® assessment reveals an individual’s top five talents, or five “signature strengths.” According to the Gallup Corporation (2008), a strength is the ability to consistently provide near-perfect performance in a specific activity. The key to identifying strengths is to identify dominant talents - the ways in which a person most naturally thinks, feels, and behaves as a unique individual - then complement them by acquiring knowledge and skills pertinent to the activity. The Clifton StrengthsFinder 1.0® assessment includes 34 strengths in which individuals can potentially excel.

Signature strengths can be utilized to maintain employee engagement, increase productivity, and achieve organizational goals (Rath, 2007). In 2007, building on the initial assessment and language from the Clifton StrengthsFinder 1.0®, Rath and the Gallup scientists released a new edition of the assessment called Clifton StrengthsFinder 2.0® (Rath, 2007). StrengthsFinder 2.0 identifies the same 34 strengths, but provides individuals with a comprehensive *Strengths Discovery and Action-Planning Guide* that is based on an individual’s personal StrengthsFinder 2.0 results (Rath, 2007). The guide specifically looks at the nuances of what makes individuals unique, using a concept called Strengths Insight to further explain an individual’s top five strengths. Strengths Insight explains how the signature strengths can manifest themselves in an individual's daily life (Rath, 2007). StrengthsFinder 2.0 also provides ‘10 Ideas for Action’ for each

of an individual's top five strengths, therefore detailing 50 specific actions that can be taken to help an individual capitalize on those strengths (Rath, 2007).

University X, located in a small, Midwestern city, initiated a new doctoral education program in February, 2006 (Professor A, personal communication, July 24, 2014). The development of the new Doctor of Educational Leadership (Ed. D.) program was in response to an overwhelming number of expected administrative retirements in both Kansas and Missouri. Additionally, the doctoral program was created to meet the needs of working adults. University X had become increasingly aware of students' displeasure with traditional programs. Doctoral candidates expressed a need for a program of study that had practical applications to the workplace (Professor A, personal communication, July 24, 2014).

University X faculty sought feedback from several focus groups regarding the content and structure of an Ed.D. program (Professor A, personal communication, July 24, 2014). Based on the feedback received, the new Ed. D. program was designed with an accelerated class schedule with courses held one evening per week. Students complete coursework within a cohort learning group. The establishment of cohorts was based on an existing structure already being used in a highly successful School Leadership Masters program at University X. Research conducted by University X's School of Education, examining over 50 existing doctoral programs, indicated that the selected program structure would appeal to adults engaged in full-time, professional careers (Professor A, personal communication, July 24, 2014).

The University X Ed. D. program is approved by the Higher Learning Commission of North Central Association of Colleges and Schools (Professor A,



personal communication, July 24, 2014). Candidates accepted to the program are required to complete sixty-one hours of program study (University X Graduate School of Education, 2008). Candidates are also required to complete a field experience, an online portfolio, and successfully present the portfolio to a panel of university faculty. As a final requirement, candidates successfully complete and defend a dissertation (University X Graduate School of Education, 2008). The two-wheeled model (see Figure 1) developed for the conceptual framework accurately represents the Ed.D. philosophy and vision. As described in the *2008 Doctorate in Education Leadership Policy and Programs Handbook*, the conceptual framework serves as a dynamic guide for education which is represented by the larger revolving wheel composed of four elements, driven by a smaller wheel containing the evaluation process. The three outer components in the larger wheel, which include the Program Objectives, the Program Structure, and the Essential Characteristics, rotate around the program mission statement. This model illustrates the never-ending relationship that the three outer components of the first wheel have to each other and to the program mission and how the evaluation process drives the components in the first wheel. The model represents the dynamic process necessary for designing programs that will develop effective and relevant educational leaders (University X Graduate School of Education, 2008).

## MODEL OF THE SCHOOL OF EDUCATION *Conceptual Framework*

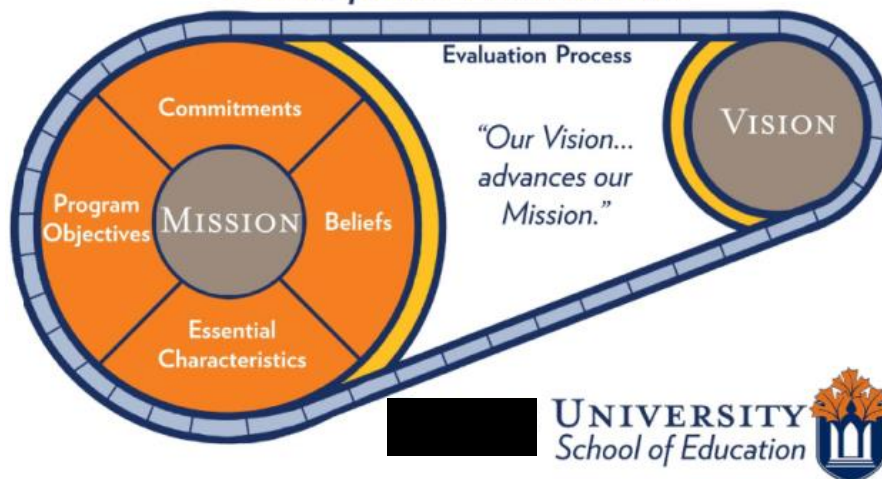


Figure 1. Two-wheeled model for the conceptual framework representing University X's Ed.D. philosophy and vision.

Adapted from *2008 Educational Leadership Policy and Programs Handbook*. University X Graduate School of Education. p. 4.

The mission of University X's Doctor of Education (Ed. D.) in Educational Leadership program, as stated in the 2008 Doctor in Education Leadership Policy and Programs Handbook, is:

To develop leaders who have a strong knowledge base and sense of beliefs and values supported by educational research and best practices; and who have the passion, commitment, and skills to transfer knowledge, beliefs, and values into policy and practice. (p. 5).

To achieve the program mission, each course is designed to further the leadership development of the doctoral candidates. Feedback from several focus groups as well as successful curricula from the Masters program indicated that typology testing would be a valuable tool in leadership development (Professor A, personal communication, July 24, 2014). The Clifton StrengthsFinder® typology instrument was administered to doctoral

candidates during early program coursework. The instrument was administered by a doctoral instructor as an assignment for a course. Cohort 1 was administered typology instruments during Colloquium I. To provide candidates with more time for reflection on individual results, Cohorts 2 – 8 were administered the typology instruments in courses Foundations of Educational Leadership or Communication and Collaboration in Leadership, which were the first two courses taken by doctoral candidates in the Educational Leadership program. Course assignments in these classes provided doctoral candidates with the opportunity to consider how their individual strengths can be utilized in the area of leadership; specifically as their strengths relate to the professional standards for educational leaders developed by the Interstate School Leaders Licensure Consortium (ISLLC) (Professor A, personal communication, July 24, 2014).

### **Statement of the Problem**

In the field of education, research in the area of leadership has been focused on the various types of leadership models and leader behaviors that positively impact a school. Prominent models of leadership are utilized within education, specifically those models that indicate a positive impact on student learning. For example, Instructional leadership is said to positively impact a school by focusing on improving the classroom practices of teachers (Leithwood, Louis, Anderson, & Wahlstrom, 2004).

Transformational leadership is said to positively impact a school by focusing on a broader array of school and classroom conditions that may need to be changed if learning is to improve. Both Democratic and Participative leaders seek to positively impact a school by focusing on how decisions are made about both school priorities and how to pursue them (Leithwood et al., 2004). Authentic leadership emphasizes building the

leader's legitimacy through honest relationships with followers which value their input and are built on an ethical foundation (Gardner, Cogliser, Davis, & Dickens, 2011).

Transactional leadership, also known as managerial leadership, focuses on the role of supervision, organization, and group performance; transactional leadership is a model of leadership in which the leader promotes compliance of his followers through both rewards and punishments (Bass, 2008). Servant leadership is a leadership model that aims to enrich the lives of individuals, build better organizations and create a more just and caring world (Greenleaf, 1973). According to Greenleaf (1973), "[servant leadership] manifests itself in the care taken by the servant-first to make sure that other people's highest priority needs are being served." These prominent models of leadership are recognized by educators as having a positive impact on schools.

Research on leadership has largely been focused on approaches to leading an organization, but not the individual characteristics, or strengths, of the leaders themselves. Little research has been conducted to determine if educational leaders reflect on their personal leadership qualities. Research conducted by the Gallup Corporation (2014) indicated that there is no specific quality that all effective leaders possess. The Gallup Corporation researchers (2014) found that the most effective leaders are acutely aware of their personal strengths and how to use them to their best advantage. In the field of education, minimal research in the area of strengths-based leadership has been conducted.

### **Purpose of the Study**

The purpose of this study was to determine the extent to which University X doctoral candidates reflect on their five signature strengths, per individual results from

the Clifton StrengthsFinder 2.0® typology instrument, when making decisions about situations related to the Interstate School Leaders Licensure Consortium Professional Standards for Educational Leadership. Second, the study looked at the potential impact of time as it relates to leaders' reflection on their five signature strengths when making decisions related to the ISLLC Standards. The third purpose was to determine if demographic variables (age, current profession, and gender) impact leaders' reflections on their five signature strengths when making decisions. Thus, this study examined the frequency with which doctoral candidates' reflect on individual strengths when making leadership decisions in the field of education.

### **Significance of the Study**

The results of this study make a significant contribution to the existing research on leadership practices in education by addressing the lack of research on the reflection of personal strengths when making leadership decisions. Personal reflection is a practice encouraged in the field of education. Boud, Keogh, and Walker (1985) noted that reflection is an important human activity in which people recapture their experience, think about it, and evaluate it. Upon learning their strengths, doctoral candidates at University X reflected on and discussed their strengths in relationship to educational leadership as part of the course assignments in Foundations of Educational Leadership or Communication and Collaboration in Leadership (Professor A, personal communication, July 24, 2014). The results of this study indicated that doctoral candidates in an Ed.D. program reflect on personal strengths when making leadership decisions.

## **Delimitations**

Delimitations are referred to as “self-imposed boundaries created by the researcher on the purpose and scope of the study” (Lunenburg & Irby, 2008, p. 134).

1. This study focused on a survey, Reflections on Signature Strengths in Leadership, sent to doctoral candidates.
2. The sample used for this study was limited to doctoral candidates enrolled in the first eight cohorts (2005 - 2010) of the University X Doctorate of Education in School Leadership program.

## **Assumptions**

Assumptions are referred to as the “postulates, premises, and propositions that are accepted as operational for purposes of the research. Assumptions include the nature, analysis, and interpretation of the data” (Lunenburg & Irby, 2008, p. 135).

1. Participants understood the survey questions.
2. Participants responded honestly to survey questions.
3. Participant recollections were accurate.

## **Research Questions**

Research questions (RQ) “shape and specifically focus the purpose of the study” (Creswell, 2009, p. 132).

RQ 1: To what extent do University X doctoral candidates reflect on their five signature strengths when making decisions relating to the Interstate School Leaders Licensure Consortium Professional Standards for Educational Leadership?

RQ 2: To what extent does time impact University X doctoral candidates’ reflection on their five signature strengths when making decisions relating to the Interstate

School Leaders Licensure Consortium Professional Standards for Educational Leadership?

RQ 3: To what extent do demographic variables (age, current profession, and gender) impact University X doctoral candidates' reflection on their five signature strengths when making decisions relating to the Interstate School Leaders Licensure Consortium Professional Standards for Educational Leadership?

### **Definition of Terms**

According to Roberts (2004), terms that “do not have a commonly known meaning or terms that have the possibility of being misunderstood” should be operationally defined (p. 129).

**Advisor.** An Advisor was defined as the faculty member a graduate student had as their academic supervisor and/or Clinical Research Study chairperson (University X Graduate School of Education, 2008).

**Cohort Group.** A Cohort Group was defined as a group of students entering a program at the same time and completing at least two-thirds of the program together (University X Graduate School of Education, 2008).

**Doctor of Educational Leadership.** The Doctor of Educational Leadership degree, or Ed.D., was defined as a professional degree that is designed for individuals who wish to pursue careers as leaders in the field of education or as applied researchers (Baker University Graduate School of Education, 2008).

**Personality Type, Typology, or Temperament.** A Personality Type, Typology, or Temperament was defined as aspects of an individual's personality, such as introversion or extroversion, which are often regarded as innate rather than learnt (Kagan, 2005).

**Personality Test.** A personality test was defined as a questionnaire or other standardized instrument designed to reveal aspects of an individual's character or psychological makeup (Kaplan & Saccuzzo, 2010).

### **Overview of the Methodology**

This study utilized a survey research design. Quantitative data were collected from 126 school leaders who were participants in the first eight cohort groups of the Doctorate of Educational Leadership Program at University X. The quantitative data were collected using the online survey instrument, Survey Monkey. Prior to providing study participants access to the online survey, the researcher sent email notification to provide background data related to the purpose of the study, directions and timelines for completing the survey instrument, and to provide an assurance of participant anonymity. Follow-up communication was conducted prior to the survey deadline to encourage participation.

The 27-item questionnaire asked doctoral candidates to reflect on their signature strengths, per results of the Clifton StrengthsFinder 2.0® typology instrument, as they make decisions related to the ISLLC standards. Demographic data that was collected included: age, current profession, gender, and year of graduation or current enrollment status. The demographic data collected from each participant was used in defining multiple subgroups. Raw data from the survey instrument was converted to the Statistical



Package for Social Sciences (SPSS) format. Twenty-three one sample *t* tests were conducted to analyze research hypotheses 1 – 24, doctoral candidates' reflections on their signature strengths. Twenty-three one-factor analysis of variance (ANOVA) were conducted to test research hypothesis 24. The categorical variable used to group candidates' reflections was time. Twenty-three ANOVAs were conducted to test research hypothesis 25. The categorical variable used to group candidates' reflections was age. Twenty-three ANOVAs were conducted to test research hypothesis 26. The categorical variable used to group candidates' reflections was current profession. Twenty-three two sample *t* tests were conducted to test research hypothesis 27. The categorical variable used to group candidates' reflections was gender.

### **Organization of the Study**

The dissertation is divided into five chapters. Chapter one included the introduction, background of the study, significance of the study, overview of methodology, statement problem, purpose, delimitations, assumptions, and definitions of key terms. Chapter two provides a comprehensive review of literature relevant to the study. Chapter three included the topics of research design, population sample, instrumentation, data collection procedures, and statistical analysis as related to this study. Chapter four contains all data collected and results, based on the statistical analysis conducted in the study. Chapter five contains a discussion of the data, its relationship with the hypotheses, and recommendations for further research. Following Chapter five, there are appendices containing pertinent documents such as the survey instrument, the written invitation to participate in the survey, and additional data tables.

## **Chapter Two**

### **Review of Literature**

Leadership is a focus of research in education. Cotton (2003) identified 25 categories of behavior in educational leaders that positively affect schools. Marzano et al. (2005) examined models of leadership utilized in education that correlate to student achievement. Educational leaders are regarded as central to the task of building schools that promote student learning. This recognition, along with a shortage of high-quality leaders in American schools, has heightened interest in leadership development in education (Darling-Hammond, LaPointe, Meyerson, Orr, & Cohen, 2007).

This chapter represents literature pertinent to the research study, namely, existing models of leadership, common leadership models in education, behaviors of educational leaders, and the individual talents, or strengths, leaders possess and capitalize on to improve their organizations. Specifically, chapter two is organized into five sections: (a) theories of leadership, (b) behaviors of educational leaders, (c) development of typology instruments, (d) thirty-four signature strengths, and (e) instrument critiques.

#### **Theories of Leadership**

According to the American Association of School Administrators (2004), school leaders are professionals who have a code of ethics and are licensed by state boards and of education. School leaders adhere to a body of standards set forth by the Interstate School Leaders Licensure Consortium Professional Standards for Educational Leadership. The Council of Chief State School Officers (2008) organized the functions of school leaders into six standards. These standards represent the broad, high-priority

themes that education leaders must address in order to promote the success of every student (The Council of Chief State School Officers, 2008). These six standards call for:

- Setting a widely shared vision for learning
- Developing a school culture and instructional program conducive to student learning and staff professional growth
- Ensuring effective management of the organization, operation, and resources for a safe, efficient, and effective learning environment
- Collaborating with faculty and community members, responding to diverse community interests and needs, and mobilizing community resources
- Acting with integrity, fairness, and in an ethical manner
- Understanding, responding to, and influencing the political, social, legal, and cultural contexts (p. 6)

According to Lunenburg and Orenstein (2004), as a profession, education is guided by these standards and has matured as a science and developed a solid theoretical base. This theoretical base was developed from organized and tested knowledge (Lunenburg & Orenstein, 2004). Lunenburg and Orenstein (2004) asserted that almost every action a school leader takes is based to some degree on a theory. There are a variety of leadership theories utilized in education.

Lunenburg and Orenstein (2004) noted that Classical Organizational Theory includes two types of management perspectives: scientific management and administrative management. Scientific management is focused on managing the work and the workers. Administrative management is focused on the management of the entire organization (Lunenburg & Orenstein, 2004).

Taylor (1911) stated, leaders following the scientific management approach can determine the “best” way to perform a job by observing and collecting data in the workplace. As the data is analyzed, leaders can then scientifically train, teach, and develop the personnel selected (Taylor, 1911). Leaders should cooperate with workers to ensure tasks are accomplished and should focus their efforts on planning, organizing, and decision-making activities. Workers should focus their efforts on performing their jobs according to their training (Taylor, 1911).

The administrative management approach, as described by Henri Fayol (1917), directs leaders to engage in five basic management functions: forecasting, planning, organizing, commanding, and controlling (Lunenburg & Orenstein, 2004). A key difference between Fayol and Taylor is the emphasis on the human and behavioral characteristics of employees. Fayol's (1917) administrative management approach places the focus on training management around the basic management functions instead of focusing on individual worker efficiency.

The early leadership approaches described in the Classical Organizational Theory do not consider the psychological and social factors present in the workplace. Leaders utilizing the approaches of scientific management or administrative management are focused on the task, with little care or concern for the employees of the organization (Lunenburg & Orenstein, 2004). Modern theories of leadership include a focus on the individual workers in an organization.

An emerging theory of interest in the field of leadership is authentic leadership development (Avolio, Walumbwa, & Weber, 2009). Luthans and Avolio (2003) defined authentic leadership as “a process that draws from both positive psychological capacities

and a highly developed organizational context, which results in both greater self-awareness and self-regulated positive behaviors on the part of leaders and associates, fostering positive self-development” (p. 243). According to George (2003) authentic leaders of mission-driven companies will create far greater shareholder value than financially oriented companies. Hyatt (2012) explained that authentic leaders exhibit five ‘hallmark’ characteristics. These include: demonstrating a commitment to the vision; demonstrating imitative; exerting influence; having impact and incite change; and exercising integrity. Authentic leadership is intended to have a positive impact on individual employees.

The Contingency Theory of leadership, similar to authentic leadership, holds the basic premise that leaders who are motivated by relationships with employees will perform better in certain situations (Fiedler & Chemers, 1984). This model of leadership identifies three variables that determine situations under which a leader will be most effective. Lunenburg and Orenstein (2004) identified the following variables:

Leader-employee relations (the degree to which the leader feels accepted by his followers; task structure (the degree to which the work to be done is clearly outlined); and position power (the extent to which a leader has control over rewards and punishments the followers receive). (p. 13)

Situational Leadership Theory was developed by Hersey and Blanchard (1997). Similar to the Contingency Theory, the Situational Leadership Theory is based on the relationship between follower maturity, leader task behavior, and leader relationship behavior (Hersey & Blanchard, 1997). The Situational Leadership Theory noted that two types of maturity are especially significant. The first type is job maturity – a person’s

maturity to perform the job. The second type is psychological maturity – the person's level of motivation demonstrated through achievement and willingness to take on additional responsibility (Hersey & Blanchard, 1997).

The Paternalistic Theory of leadership is based on the premise that the leader acts as a father figure by leading subordinates as a parent would lead children (Erben & Güneşer, 2008). In this style of leadership the leader demonstrates a great degree of concern for his or her followers. The theory is that this leadership style will earn the leader the complete trust and loyalty of his or her followers (Erben & Güneşer, 2008). According to Erben and Güneşer (2008), employees under this style of leader are expected to become totally committed to the leader's beliefs and will not strive off and work independently. The relationship between employees and the leader is extremely solid and there is an expectation that the employee will stay with the company for a longer period of time.

The Transactional Theory of leadership is based on an exchange model, with rewards being given for good work or positive outcomes (Bass, 2008). Conversely, this leadership style can also punish poor work or negative outcomes, until the problem is corrected (Bass, 2008). Transactional leaders are focused on processes rather than forward-thinking ideas. Contingent rewards, such as praise, are given when goals are accomplished. These rewards are also given to keep employees working at a good pace at different times throughout completion (Bass, 1985). Contingent punishments, such as suspensions, are given when performance quality or quantity falls below production standards or goals and tasks are not met at all (Bass, 1985).

The Transformational Leadership Theory is associated with change (Goodnight, 2004). According to Goodnight (2004), the leader:

Influences others to improve themselves and/or the company beyond what would normally be accomplished without such leadership. Transformational leaders champion the change process and continually communicates the vision to all those involved. The managers continue their functions of planning, organizing, staffing, directing, controlling, communicating, problem solving, and decision making to maintain productivity output and quality while managing the change process. (p. 821)

Goodnight (2004) described the theory of Autocratic Leadership as a management style that thrives in highly-structured, hierarchical chain-of-command environments. According to Goodnight (2004), the autocratic leader, “exercises almost absolute power and commands strict compliance and conformity” (p. 821). Under an autocratic leader, subordinates work within a well-defined and controlled disciplinary process with an emphasis on punishments for noncompliance. The leader determines prescribed policies, procedures, rules, and goals. In this environment, little interaction or communication is expected among associates (Goodnight, 2004).

The Laissez-faire Theory of leadership is based on the idea that the leader believes in freedom of choice for the employees, leaving them alone so they can perform their jobs as they see fit (Goodnight, 2004). More than half a century ago, Lewin, Lippit, and White (1939) noted that laissez-faire leaders give their employees a lot of freedom in how they do their work, and how they set their deadlines. Support is provided with resources and advice if needed, but otherwise they take a “hands-off” approach to

leadership. In more recent research the basis for this style of leadership is a strong belief that the employees know their jobs best; therefore, it is better to leave them alone to do their jobs (Goodnight, 2004).

Greenleaf (1973), in his book, *The Servant as a Leader*, identified the theory of servant leadership. In this leadership style, the leader takes on the role of servant to ensure that other people's highest priority needs are being served (1973). Greenleaf (1973) explained servant leadership as a focus on the growth and well-being of people and the communities to which they belong. The servant-leader shares power; he or she will place the needs of others first and help people develop and perform at high levels.

The theory of Democratic Leadership, also known as Participant Leadership, encompasses the notion that everyone, by virtue of their human status, should play a part in the group's decisions (Woods, 2010). According to Woods (2010), while all employees should play a part in decision-making, the democratic style of leadership still requires guidance and control by a specific leader. Under this theory, the leader must make decisions on who should be called upon within the group and who is given the right to participate in, make and vote on decisions (Woods, 2010). Martindale (2011) noted this leadership style works best in situations where group members are skilled and eager to share their knowledge.

The theory of Instructional Leadership is pertinent to the field of education. In the context of educational settings, this theory places teaching and learning as a top priority. Instructional Leadership is considered a balance of management and vision (National Association of Elementary School Principals, 2001). Instructional leaders focus on alignment of curriculum, instruction, assessment, and learning standards.



Effective Instructional Leaders use multiple sources of information to assess performance (NAESP, 2001). These leaders also encouraged a culture of continuous learning for school personnel such as principals and teachers. Chase and Kane (1983) noted that effective principals view instructional improvement as an ongoing process.

Numerous theories of leadership exist and have been researched since the early 1900s. These theories have practical applications in education today. Educational leaders are implementing the principles of prominent leadership theories in schools across America with the intent to improve student learning. Professional literature indicates certain leader behaviors correlate to higher rates of student achievement (Marzano et al., 2005). Professional development for educational leaders has centered on effectively implementing behaviors associated with student learning (Waters & Cameron, 2007).

### **Behaviors of Educational Leaders**

Schön (1984) introduced reflective practice to professionals by detailing the concepts of *reflection-in-action* and *reflection-on-action* where professionals meet the challenges of their work by reflecting on these challenges and making needed adjustments. According to Schön (1984), reflection-in-action can be described as the ability of a practitioner to think on their feet. At any given moment, when faced with a professional issue, a practitioner usually connects with his or her feelings, emotions and prior experiences to attend to the situation directly. Schön (1984) noted that reflection-on-action is the idea that after the experience a practitioner analyzes their reaction to a given situation and explores the reasons around, and the consequences of, their actions. These feelings and reflections that professionals have regarding issues can prompt needed

change (Schön, 1984). Kolb (1984) asserted that a key behavior of educational leaders is engaging in reflective practice. Reflective practice is important to the development of educational leaders as it enables the leader to learn from experience.

Kolb (1984) stated that developing reflective practice means developing ways of reviewing our own actions so that it becomes a routine and a process by which we might continuously develop. Kolb (1984) suggested that it is not enough to just simply experience something in order to learn. It is necessary to reflect on the experience to make generalizations and formulate concepts which can then be applied to new situations. This learning must then be tested out in new situations. The learner must make the link between the theory and action by planning, acting out, reflecting and relating it back to the theory (Kolb, 1984).

Avolio, Avey, and Quisenberry (2010) stated that reflective practice provides an incredible development opportunity for those in leadership positions. According to Avolio et al. (2010), managing a team of people requires a balance between people skills and technical expertise, and success in this type of role does not come easily. Reflective practice provides leaders with an opportunity to critically review what has been successful in the past and where improvement can be made (Avolio, et al., 2010).

Researchers and authors like Avolio et al. (2010) have prompted educators to reflect upon the leadership practices that have been linked to school success. Researchers such as Cotton (2003) have attempted to answer the question, what behaviors do leaders implement to positively affect schools? Cotton (2003) researched the behaviors that positively affected student achievement, student attitudes, student behavior, teacher attitudes, teacher behavior, and dropout rates. Cotton (2003) reviewed fifty-six reports

and focused on the patterns and trends that emerged. From the research, Cotton (2003) identified 25 categories of behavior that good educational leaders promote or demonstrate. These include:

1. Safe and orderly environment
2. Vision and goals focused on high levels of student learning
3. High expectations for student learning
4. Self-confidence, responsibility, and perseverance
5. Visibility and accessibility
6. Positive and supportive climate
7. Communication and interaction
8. Emotional and interpersonal support
9. Parent and community outreach and involvement
10. Rituals, ceremonies, and other symbolic actions
11. Shared leadership, decision making, and staff empowerment
12. Collaboration
13. Instructional leadership
14. Ongoing pursuit of high levels of student learning
15. Norm of continuous improvement
16. Discussion of instructional issues
17. Classroom observation and feedback to teachers
18. Support of teachers' autonomy
19. Support of risk taking
20. Professional development opportunities and resources

21. Protecting instructional time
22. Monitoring student progress and sharing findings
23. Use of student progress for program improvement
24. Recognition of student and staff achievement
25. Role modeling

Cotton (2003) concluded specific leader behaviors have an effect on student outcomes.

Marzano et al. (2005) examined sixty-nine studies regarding behaviors of school leaders that would correlate to student achievement. They identified 21 categories of behavior promoted or demonstrated by school leaders that positively impact student achievement. These include:

1. Affirmation. The school leader recognizes and celebrates accomplishments and acknowledges failures.
2. Change Agent. The school leader willingly and actively challenges the status quo.
3. Contingent Rewards. The school leader recognizes and rewards individual accomplishments.
4. Communication. The school leader establishes strong lines of communication between teachers and students.
5. Culture. The school leader fosters shared beliefs and sense of community and cooperation.
6. Discipline. The school leader protects teachers from issues and influences that would detract from their instructional time or focus.
7. Flexibility. The school leader adapts his or her leadership behavior to address the situation and is comfortable with dissent.

8. Focus. The school leader establishes clear goals and keeps those goals in the forefront of the school's attention.
9. Ideals/Beliefs. The school leader communicates and operates from strong ideals and beliefs about schooling.
10. Input. The school leader involves teachers in the design and implementation of important decisions and policies.
11. Intellectual Stimulation. The school leader ensures faculty and staff are aware of the most current theories and practices and makes the discussion of these a regular aspect of the school's culture.
12. Involvement in Curriculum, Instruction, and Assessment. The school leader is directly involved in the design and implementation of curriculum, instruction, and assessment practices.
13. Knowledge of Curriculum, Instruction, and Assessment. The school leader is knowledgeable about current curriculum, instruction, and assessment practices.
14. Monitoring/Evaluating. The school leader monitors the effectiveness of school practices and their impact on student learning.
15. Optimizer. The school leader inspires and leads new and challenging innovations.
16. Order. The school leader establishes a set of standard operating procedures and routines.
17. Outreach. The school leader is an advocate and spokesperson for the school and its stakeholders.
18. Relationships. The school leader demonstrates an awareness of the personal

aspects of teachers and staff.

19. Resources. The school leader provides teachers with materials and professional development necessary for the successful execution of their jobs.

20. Situational Awareness. The school leader is aware of the details and undercurrents in the running of the school and uses this information to address current and potential problems.

21. Visibility. The school leader has quality contact and interactions with teachers and students.

Marzano et al. (2005) concluded these 21 specific leader behaviors will positively impact student achievement.

Leadership practices and behaviors of educational leaders have been researched heavily since the 1980s. Kolb (1984) identified reflective practice as key behavior to improving student learning. Cotton (2003) identified 25 categories of behavior that are key to effective leadership in education. Marzano et al., (2005) have indicated these 21 distinct behaviors school leaders that are linked to student achievement. In practice, educational leaders can utilize professional development tools, such as the workbook, *Balanced Leadership: School Leadership That Works - Developing a Purposeful Community*, to reflect on the effective behaviors of good leaders and how to positively impact schools (Waters & Cameron, 2007).

### **Development of Typology Instruments**

Modern typology instruments have roots in the philosophy of Carl Jung (Myers, 1980), who was a Swiss psychologist and psychiatrist who founded analytical psychology (Fordham, 2014). Analytical psychology emphasizes the primary importance of the

individual psyche and the personal quest for wholeness (Stevens, 2011). Jung proposed and developed the concepts of the extraverted and the introverted personality, archetypes, and the collective unconscious (Fordham, 2014).

In 1923, Jung published *Psychological Types*, introducing the idea that each person has a psychological type (Myers, 1980). Jung proposed the existence of two dichotomous pairs of cognitive functions (Myers, 1980). The pairs include the “rational” (judging) functions of *thinking* and *feeling*, and the “irrational” (perceiving) functions of *sensation* and *intuition*. Jung asserted that for every individual each of the functions are expressed primarily in either an extroverted or introverted form (Myers, 1980).

Zeisset (2006) described extraversion as “outward-turning” and introversion as “inward-turning.” The preferences for extraversion and introversion are often referred to as attitudes. Each of the cognitive functions can operate in the external world of behavior, action, people, and things (extraverted attitude) or the internal world of ideas and reflection (introverted attitude) (Zeisset, 2006).

According to Nettle (2007), people who prefer extraversion draw energy from action: they tend to act, then reflect, then act further. If they are inactive, their motivation tends to decline. To rebuild their energy, extraverts need breaks from time spent in reflection. Conversely, those who prefer introversion expend energy through reflection: they prefer to reflect, then act, then reflect again. To rebuild their energy, introverts need quiet time alone, away from activity (Nettle, 2007).

Tieger and Tieger (1998) noted contrasting characteristics between extraverts and introverts that include the following:

- Extraverts are action oriented, while introverts are thought oriented.

- Extraverts seek breadth of knowledge and influence, while introverts seek depth of knowledge and influence.
- Extraverts often prefer more frequent interaction, while introverts often prefer more substantial interaction.
- Extraverts recharge and get their energy from spending time with people, while introverts recharge and get their energy from spending time alone. (p. 13)

Despite a tendency toward extraversion or introversion, individuals will display both psychological types as specific situations dictate. Neither attitude, extraversion nor introversion, is better. Humans adapt themselves to the type that is most appropriate (Frager & Fadiman, 2005).

In *Psychological Types*, Jung (1923) categorized people into primary types of psychological function. The functions include Thinking, Feeling, Sensation, and Intuition. Jung suggested that these functions are expressed in either an introverted or extraverted form (Myers & Myers, 1995). Frager and Fadiman (2005) stated, “thinking and feeling are alternative ways of forming judgments and making decisions” (p. 56). Thinking is about objective truth, judgment, and impersonal analysis. Feeling is about value; is a judgment good or bad (Frager & Fadiman, 2005). Sensation seeks to find out what an individual perceives through experience, details, and facts. Intuition considers perceptions in a futuristic manner, wondering what possibilities exist based on past experiences and current realities (Frager & Fadiman, 2005).

In *Psychological Types*, Jung (1923) explained the functions. Thinking and feeling are the decision-making (judging) functions. The thinking and feeling functions are both used to make rational decisions, based on the data received from their



information-gathering functions (sensing or intuition). Those who prefer thinking tend to decide things from a more detached standpoint, measuring the decision by what seems reasonable, logical, causal, consistent, and matching a given set of rules. Those who prefer feeling tend to come to decisions by associating or empathizing with the situation to achieve, on balance, the greatest harmony, consensus and fit, considering the needs of the people involved (Jung, 1923).

Sensation and intuition are the information-gathering (perceiving) functions. They describe how new information is understood and interpreted. Individuals who prefer sensation are more likely to trust information that is in the present, tangible, and concrete: that is, information that can be understood by the five senses (Myers-Briggs & Myers, 1995). They prefer to look for details and facts. For them, the meaning is in the data. Individuals preferring intuition tend to trust information that is more abstract or theoretical, that can be associated with other information (either remembered or discovered by seeking a wider context or pattern). They may be more interested in future possibilities. They tend to trust those flashes of insight that seem to come up from the unconscious mind. The meaning is in how the data relates to the pattern or theory (Myers & Myers, 1995).

According to the Myers-Briggs Foundation (2012), the academic language of *Psychological Types* made it hard to read and so few people could understand and use the ideas for practical purposes. The first personality tests were used mainly as a means to ease the process of personnel selection, particularly in the armed forces (Kaplan & Saccuzzo, 2010).

There are two primary types of personality tests — objective, by far the most commonly used today, and projective (Framingham, 2011). Objective personality tests are described by Framingham (2011) as assessments that help individuals better understand themselves. These assessments also help professionals determine the best strategy or approach to assist employees (Framingham, 2011). Fournier (2009) explained projective personality tests as assessments that measure areas of the unconscious mind, such as fears or attitudes. Professionals might use this assessment to determine if a potential hire is a good fit for the workplace (Fournier, 2009).

Several of the early objective typology instruments included:

- 1919 - Woodworth Personal Data Sheet: designed to help the United States Army screen out recruits who might be susceptible to shell shock (Holtzman, 2014).
- 1942 - The Minnesota Multiphasic Personality Inventory: designed as an aid in assessing psychopathology in a clinical setting (Framingham, 2011).

Several of the early projective typology instruments included:

- 1921 - Rorschach Inkblot Test: designed to determine personality by the interpretation of abstract inkblots (Framingham, 2011).
- 1930 - The Thematic Apperception Test: commissioned the Office of Strategic Services (O.S.S.) to identify personalities that might be susceptible to being turned by enemy intelligence (Framingham, 2011).

During World War II, Briggs and Myers observed and researched the differences in human personality (Kirby & Myers, 1998). Myers and Briggs studied the work of Jung and built upon his ideas. They began developing a questionnaire that was intended

to help women entering the industrial workforce identify war-time jobs wherein they would be both effective and comfortable (Myers-Briggs & Myers, 1995). This questionnaire developed into what is now known as the Myers-Briggs Type Indicator (MBTI). The MBTI identifies eight mental functions. These mental functions are shown in Figure 2.

<b>Dichotomies</b>	
Extraversion ( <b>E</b> )	– (I) Introversion
Sensing ( <b>S</b> )	– (N) Intuition
Thinking ( <b>T</b> )	– (F) Feeling
Judging ( <b>J</b> )	– (P) Perception

*Figure 2*

Dichotomies, the four pairs or preferences of the MBTI.

The MBTI utilizes the eight mental functions of extraversion, introversion, sensing, intuition, thinking, feeling, judging, and perceiving to provide an individual with one of 16 potential typologies, or 16 potential combinations of the eight mental functions. These typologies describe the degree to which an individual prefers certain mental functions (Myers-Briggs, McCaulley, Quenk, & Hammer, 1998). For example, a potential typology could be ENTJ. This typology indicates a preference for the functions of extraversion, intuition, thinking, and feeling (Myers-Briggs, McCaulley, Quenk, & Hammer, 1998).

Like Briggs and Myers, Keirsey was also interested in studying the psychology of temperament and personality. According to Keirsey, temperament is a configuration of

observable personality traits. These traits, which include: habits of communication, patterns of action, and sets of characteristic attitudes, values, and talents (Keirsey & Bates, 1984). Temperament also includes personal needs, the types of contributions that one can make in a professional setting, and the roles individuals play in larger society. Keirsey studied the 16 types identified by the MBTI and simplified this into four main temperaments: Guardians, Artisans, Idealists, and Rationalists (Keirsey & Bates, 1984). The Keirsey Temperament Sorter is a typology instrument that classifies individuals into their dominant temperaments.

In the book, *Please Understand Me II*, Keirsey and Bates described (1998) the four temperaments. According to Keirsey and Bates (1998), Guardians serve and preserve the most important social institutions in society. Guardians have a natural talent for management and supervision. They are characterized by their loyalty and dependability. Artisans excel at fine arts as well as performing arts. They are characterized as fun-loving and focused on the here and now. Idealists are focused on personal growth and development. They enjoy working with people, often in service-related professions. They are characterized by their ability to trust their intuition and seek out their true self. Rationals are known as the problem solvers. Rationals seek to understand systems and work to refine them so that they will work better. They are characterized as pragmatic, skeptical, and focused on systems analysis (Keirsey & Bates, 1998).

Clifton took a different approach to the research on psychological type and developing a typology instrument. While Briggs, Myers, and Keirsey researched temperament, Clifton researched human strengths (Rath, 2007). Buckingham and Clifton

(2001) focused their research on identifying human strengths and how organizations can capitalize on these strengths. Buckingham and Clifton led a team of Gallup researchers to study top performers in business. The Gallup Organization surveyed 198,000 employees in 7,939 business units within 36 companies (Buckingham & Clifton, 2001). The survey results indicated that twenty percent of employees feel their strengths are utilized regularly (Buckingham & Clifton, 2001). To improve employee performance and promote strengths-based leadership, the Clifton StrengthsFinder 1.0® was developed. The online assessment was designed to help individuals recognize their talents and develop their strengths (Rath, 2007).

Rath (2007) began working with Clifton's team in 1998, primarily with the development of the initial Clifton StrengthsFinder 1.0®. The instrument identified 34 human strengths. Participants utilizing the instrument had 20 seconds to respond to questions. According to Rath (2007) the instrument identifies an individual's most intense natural responses. Based on an individual's responses, the instrument will indicate five of the 34 as being one's more prominent talents, or "signature strengths" (Rath, 2007). A second instrument, the Clifton Strengths Finder 2.0®, was made available in 2007 (Rath, 2007). The Clifton StrengthsFinder 2.0® is an extension of the original instrument, focusing on reflection of one's signature strengths and action planning.

In the book, *Soar With Your Strengths*, Clifton and Nelson (1992) noted that the focus in America is to fix weakness. They explained:

The popular notion is that if you fix a weakness in an individual, the individual will become stronger. Ultimately, one would assume, if all weaknesses were

removed or fixed, then everything would be perfect. Sadly, the assumption is false. Fixing weakness only puts a person at a normal or average level. (p. 10-11)

Clifton and Nelson (1992) asserted that, “excellence can be achieved only by focusing on the strengths and managing weakness, not through eliminating weaknesses” (p. 11). In *Strengths Based Leadership*, Rath and Conchie (2008) researched the 34 strengths as they applied to leadership roles. The authors identified three keys to being a more effective leader: knowing your strengths and investing in others’ strengths, getting people with the right strengths on your team, and understanding and meeting the four basic needs of those who look to you for leadership (Rath & Conchie, 2008). The following section explains the 34 signature strengths that an individual could potentially discover by participating in the Clifton StrengthsFinder® instrument. An awareness of one’s strengths and how to apply them, yield positive results for leaders and organizations (Rath, 2007).

### **Thirty-four Signature Strengths**

The 34 Signature Strengths are the 34 most common talents assessed by the Clifton StrengthsFinder® typology instrument (Rath, 2007). The 34 strengths assessed are: Achiever, Activator, Adaptability, Analytical, Arranger, Belief, Command, Communication, Competition, Connectedness, Consistency, Context, Deliberative, Developer, Discipline, Empathy, Focus, Futuristic, Harmony, Ideation, Includer, Individualization, Input, Intellection, Learner, Maximizer, Positivity, Relator, Responsibility, Restorative, Self-Assurance, Significance, Strategic, and Woo (Rath, 2007).

The strength of Achiever explains an individual who constantly strives to achieve something tangible 365 days a year. Achievers cannot rest; each accomplishment only

spurs an Achiever onto the next potential accomplishment. Rath (2007) asserted that Achievers can be characterized by their energy to work long hours without tiring and that they will set the pace and define the productivity levels for their work groups.

The strength of Activator describes an individual who believes action is what makes something happen in an organization. Activators need to immediately act upon decisions once they are made. As Rath noted, Activators often feel that learning only occurs when action has taken place (Rath, 2007). Individuals with the strength of Activator desire to take the next step and are happy to be judged based on their actions (Rath, 2007).

The strength of Adaptability defines individuals who, according to Rath (2007), “live in the moment. [They] don’t see the future as a fixed destination. Instead, [they] see it as a place to create the choices you make right now” (p. 45). Individuals that display the strength of adaptability are not concerned with altering their plans as the moment dictates. Rather, these individuals thrive on the idea of sudden, unexpected change.

Individuals displaying an Analytical strength like to challenge others and need to prove a claim is true. Rath (2007) characterized Analytical individuals as being objective and data-driven. Structures, patterns, and formats stand out to those with this strength. Data is comforting to these individuals because it has no specific goals (Rath, 2007).

The strength of Arranger depicts individuals who can sift through many factors in a complex situation and determine an effective manner for getting the job done. Rath (2007) explained that Arrangers are, “always looking for the perfect configuration. [They] jump into the confusion, devising new options, hunting for new paths of least

resistance, and figuring out new partnerships” (p. 53). Arrangers enjoy complex situations with multiple variables that must be considered to implement an effective plan.

Individuals who are known to be altruistic, family-oriented, and spiritual are said to have the strength of Belief (Rath, 2007). These individuals believe in responsibility and have high ethical standards. Those displaying the strength of Belief are driven by their values; life is more meaningful and satisfactory if decisions and actions are rooted in core values (Rath, 2007). The strength of Belief is often what drives these individuals to work harder and take on significant challenges.

The strength of Command characterizes individuals who, “feel no discomfort with imposing [their] views on others” (p. 61). In fact, once these individuals have formed an opinion, they feel as though they must share it with others (Rath, 2007). These individuals are very candid and can, at times, seem intimidating. However, they help others take risks and face challenges head-on (Rath, 2007). Those with the strength of Command will take charge in any situation.

Explaining, describing, and illustrating through speech characterizes the strength of Communication (Rath, 2007). Rath noted individuals with the strength of Communication enjoy speaking in public and insert energy into ideas or events that are dry or static. This strength explains individuals who can share information in a relevant and lasting fashion. People enjoy listening to those with this particular strength. Communicators can summarize key points and help build consensus amongst a group (Rath, 2007).

Individuals with the strength of Competition are driven to outperform their peers (Rath, 2007). Success is measured in comparison with others, rather than meeting a pre-



determined goal. Achievement is satisfactory when the achievement has gone beyond what peers have accomplished. Those with the strength of Competition like contests or opportunities when there will be an established ‘winner’ (Rath, 2007).

The notion that things happen for a reason characterizes individuals with the strength of Connectedness (Rath, 2007). These individuals perceive all people to be connected and part of something greater. Therefore, if we all play a role in the bigger picture, those with the strength of Connectedness will feel responsible for not harming or exploiting others (Rath, 2007). Rath (2007) described connected individuals as, “bridge builders for people of different cultures. [They] are sensitive to the invisible hand, giving others comfort that there is a purpose beyond our humdrum lives” (p. 73).

Balance and the need to ensure that people, regardless of station in life, receive the same treatment define individuals with the strength of Consistency (Rath, 2007). These individuals value equity and are uncomfortable with the notion that some have the advantage over others. Rath (2007) explained that individuals with the strength of Consistency prefer environments where expectations are clear, there is a sense of fairness, and each person can showcase his or her worth. Individuals with this strength like to see environments with explicit rules that are applied consistently and fairly with all parties involved (Rath, 2007).

The strength known as Context described individuals who look to the past in order to explain or problem-solve the present issues (Rath, 2007). Current challenges can only be addressed when these individuals have the opportunity to reflect on the past and learn from previous actions or decisions. Understanding the past and the original

intentions of others allows these individuals to make better decisions and maintain confidence in these decisions (Rath, 2007).

Rath (2007) explained individuals with the strength of being Deliberative as careful, vigilant, and private. Individuals with this strength view the world as unpredictable and filled with risks. However, each risk can be identified and assessed. Therefore, risks can be reduced (Rath, 2007). These individuals approach matters with caution and make deliberative decisions that minimize potential dangers.

The strength of Developer describes individuals that can see the potential in others and help them grow (Rath, 2007). Rath (2007) asserted that these individuals interact with others in order to help them experience success. Personal satisfaction is derived from challenging others to develop personally or professionally. Developers will find that others seek them out for guidance and encouragement; their innate helpfulness is perceived as being genuine (Rath, 2007).

Individuals with the strength of Discipline prefer environments that are predictable, orderly, and enjoy events that are well-planned (Rath, 2007). These individuals thrive on structure and routine in day-to-day activities. Those with the strength of Discipline are good at breaking down long-term projects into smaller, more manageable benchmarks. Rath (2007) stated that, “the routines, the timelines, the structure, create a [needed] feeling of control” (p. 93). Surprises or unplanned events are met with disdain. Minimizing distractions ensures progress and productivity for those with the strength of Discipline (Rath, 2007).

The strength of Empathy explains individuals who can sense the emotions of others and can process these feelings as if they were their own (Rath, 2007). Those with

the strength of Empathy can often anticipate the needs of others and assist them in finding the correct words, phrases, or questions to express their thoughts and feelings. These individuals are capable of understanding the perspective of others, even those that they do not agree with (Rath, 2007).

Individuals characterized by the strength of Focus need a clear sense of direction and understanding what the final destination will be (Rath, 2007). Those with the strength of Focus can become frustrated without a clear result in mind. These individuals are particularly good at evaluating actions and determining which ones will help move them toward the goal. Rath (2007) stated that individuals with Focus are, “valuable team members. When others start to wander down other avenues, [they] bring them back to the main road” (p. 101).

Rath (2007) described those with the Futuristic strength as being dreamers who see visions of what could be. These individuals are always looking ahead, envisioning a future that might create a better team, product, life, or world (Rath, 2007). Those with the Futuristic strength energize others as they describe their vision of what could be and share a multitude of possibilities.

Those who seek agreement and feel that there is little to be gained from conflict display the strength of Harmony (Rath, 2007). Consensus is important to these individuals and they prefer to avoid confrontation. Those with this particular strength do not see the value in imposing their views on others; time is wasted if we do not focus on agreement. As Rath (2007) noted these individuals are open to different perspectives, but ultimately seek to reach consensus.

The strength of Ideation explains individuals that are fascinated by ideas and connections (Rath, 2007). According to Rath (2007) these individuals have, “the kind of mind that is always looking for connections, and so [they] are intrigued when seemingly disparate phenomena can be linked by an obscure connection” (p.113). New ideas are energizing for these individuals. The world often views them as creative, original, and conceptual (Rath, 2007).

The strength of Includer is a characteristic of a person who can, “include people and make them feel part of the group” (Rath, 2007, p. 117). These individuals are accepting of others regardless of race, sex, nationality, gender, and so forth (Rath, 2007). They avoid exclusive groups and make few judgments. Includers see each person as equally important and not to be ignored (Rath, 2007).

Individuals characterized as having the strength of Individualization see what is unique and distinct about each person (Rath, 2007). Those with the strength of Individualization are able to see the strengths of others. Therefore, they often create productive teams and environments (Rath, 2007). As Rath (2007) pointed out, “[they] instinctively observe each person’s style, each person’s motivation, how each thinks, and how each builds relationships” (p. 121).

An inquisitive nature and an affinity for collecting describe those with the strength of Input (Rath, 2007). These individuals are interested in a variety of things and seek to find out more information. They naturally absorb information and are very open-minded (Rath, 2007).

Rath (2007) described individuals with the strength of Intellection as enjoying mental activity and routinely engaging in thinking. The need to engage in thinking can

be either focused or unfocused. These individuals might enjoy solving a specific problem or simply taking time for reflection (Rath, 2007). Intellections are introspective and ask themselves questions as they reflect (Rath, 2007).

The strength of Learner is characterized as feeling energized by the steady and deliberate journey from ignorance to competence (Rath, 2007). Learners are drawn to the process of acquiring new information and skills. These individuals enjoy environments wherein one is expected to learn about new subject matter in a short period of time and then move on to the next subject. Rath (2007) noted that Learners are not necessarily seeking to become subject matter experts, but rather they are seeking out opportunities to engage in the learning process.

Individuals with the strength of Maximizer enjoy transforming something that is average into something that can be described as excellent (Rath, 2007). Maximizers seek to capitalize on strengths and nurture them into excellence. Individuals with this particular strength find moving something from average to excellent more satisfying, and equivalent in terms of effort, than moving something below average to slightly above average (Rath, 2007).

The strength of Positivity is demonstrated in individuals who are generous with praise, quick to smile, and are able to find the positive in nearly all situations (Rath, 2007). Others are drawn to these individuals because they are enthusiastic and energetic. Those with the strength of Positivity are able to find fun and excitement in most things. They are not deterred by setbacks and are rarely dragged down by negativity (Rath, 2007).

Rath (2007) explained that individuals with the strength of Relator derive a great deal of pleasure and comfort from being around close friends. Relators are comfortable with intimacy and closeness. These individuals seek to understand the feelings, goals, fears, dreams, etc. of their close friends. Relators can accept that this closeness can be risky, but often feel that the benefits of a close relationship outweigh potential risks.

The strength of Responsibility is synonymous with the term ownership. Individuals with this strength feel a strong sense of ownership for any commitment (Rath, 2007). They feel compelled to follow a project through the end, no excuses. Additionally, individuals with this strength will seek ways to right any wrongs or mistakes that might occur along the way. Colleagues often select these individuals for assignments or projects because they can be assured that it will get done in an effective, efficient manner (Rath, 2007).

Individuals with the Restorative strength are problem solvers (Rath, 2007). They feel energized by challenging, problematic situations. These individuals are drawn to complex issues and feel a rush when they are able to fix a seemingly ‘unfixable’ problem. Colleagues often look to Restorative individuals to intervene when problems arise as they can be counted on to identify and eradicate undermining factors in a given situation (Rath, 2007).

Self-Assurance describes those with confidence in their strengths as well as their judgment (Rath, 2007). Self-Assured individuals have a unique perspective and often serve as the final authority in the decision-making process. Instinctively, these individuals seem to always know the right decision. As Rath (2007) asserted Self-Assurance allows individuals to know with certainty they are, “able – able to take risks,

able to meet new challenges, able to stake claims, and, most important, able to deliver” (p. 157).

The desire to be recognized and viewed as significant explains individuals with the strength of Significance (Rath, 2007). These individuals are motivated by the opportunity to stand out and be known to others. Rath (2007) explained that individuals with this strength “feel a need to be admired as credible, professional, and successful” (p. 161). When working with others, these individuals will push their peers to greater achievement. Work is viewed as a way of life, not merely a job (Rath, 2007).

The strength identified as Strategic describes individuals with the unique perspective of seeing patterns where others can only see complexity (Rath, 2007). An awareness of these patterns allows these individuals to consider a variety of scenarios, analyze obstacles, and make strategic decisions. Rath (2007) explains that these individuals can, “sort through the clutter and find the best route. It is not a skill that can be taught” (p. 165).

The strength of Woo, Winning Others Over, describes individuals who are particularly good at getting to know strangers and building relationships (Rath, 2007). Those with the strength of Woo are drawn to strangers and enjoy striking up conversation. In business, these individuals are good at ‘breaking the ice’ and are excellent with networking. Rath (2007) shared that for these individuals satisfaction is achieved from forming new connections.

### **Instrument Critiques**

Critics of self-report inventory tests note that test-takers are able to fake, or distort, their responses (Arendasy, Sommer, Schutzhofer, & Inwanschitz, 2011). Hogan,

Barrett, and Hogan (2007) noted that tests that elicit sensitive or emotional information can also be unreliable. Test-takers may select answers that they feel the ideal person would choose rather than selecting an answer that is true for them. Distorting responses has occurred in previous research studies. In a study conducted in 2007, researchers studied the data of 5,266 job applicants who completed a 5-factor personality measure as part of the application process (Hogan et al., 2007). Initially, the candidates were rejected. Six months later, the same applicants reapplied and completed the same personality measure. The results of the study indicated that faking responses on self-report inventory tests is not a significant issue in real-world settings (Hogan et al., 2007).

Critics have also denounced the use of personality tests for employee selection. Researchers assert that personality tests are not reliable indicators of job performance. Therefore, the use of such tests in the hiring process is unnecessary (Murphy & Dzieweczynski, 2005). According to Baer (2013), “The key for employers is to administer a personality test that is recognized as valid, reliable and designed from statistical or psychological research and empirical data. The test must be focused on the job's skill sets and not biased with questions concerning gender, age, religious beliefs or ethnicity. Personality tests must also not cross privacy boundaries or address issues that are highly invasive. If these unwritten rules are broken by the employer administering a personality test, the company could be held liable for discrimination.”

### **Summary**

Early research conducted by Carl Jung in the area of analytical psychology has led to more recent research into typologies and personality types. Typology instruments have been developed by psychologists and used by the military, professional



organizations, and individuals. Collectively, understanding the complex personalities within an organization can refine plans for company development and growth.

Understanding one's psychological type allows the individual to further develop, both personally and professionally. Typology instruments, specifically the Clifton

StrengthsFinder®, are currently utilized within the Doctorate of Educational Leadership program at University X as tools to help candidates develop as leaders.

## **Chapter Three**

### **Methods**

The purpose of this study was to determine the extent to which University X doctoral candidates reflect on their five signature strengths, as measured by individual results from the Clifton StrengthsFinder 2.0® typology instrument, when making decisions about situations relating to the Interstate School Leaders Licensure Consortium Professional Standards for Educational Leadership. Second, the study looked at the potential impact of time as it relates to leaders' reflection on their five signature strengths when making decisions. The third purpose was to determine if demographic variables (age, current profession, and gender) impact leaders' reflection on their five signature strengths when making decisions. Chapter three of this study includes the design of the research study; population and sample; sampling procedures; instrumentation: measurement; reliability and validity; data collection procedures; data analysis and hypothesis testing; limitations; and a chapter summary.

### **Research Design**

Quantitative research involves the study of samples and populations through numerical data and statistical analysis (Gall, Gall, & Borg, 2004). Quantitative research is characterized by an epistemological belief in an objective reality, the analysis of reality into measurable variables, the study of samples representing a defined population, and a reliance on statistical methods to analyze data (Gall, Gall, & Borg, 2004). According to Thomas (2003), quantitative research is based on the scientific model that uses observable and numerical data to conduct hypotheses test. Muijs (2011) noted researchers using quantitative research methods know in advance, what they are looking

for and design the study before data are collected. According to Muijs (2011) data does not naturally exist in numerical measurable quantitative form, a research instrument can be designed to collect information that can be analyzed statistically.

According to Creswell (2009), researchers conducting a quantitative design study “will frequently use a survey instrument to gather a numeric description of trends, attitudes, or opinions of large populations” (p. 145). The survey instrument allows participants to rate their feeling or beliefs. The respondent’s attitudes and beliefs can be generalized from the sample to determine the results and used in a quantitative study. The survey instrument utilized in this study was the Reflections on Signature Strengths in Leadership Questionnaire (Appendix A).

Quantitative studies require the researcher to identify each concept that is being measured. Concepts that are measured are known as variables because individuals or other entities thought to vary in the extent to which they have them (Gall, Gall, & Borg, 2004). Independent variables are explained as variables that researchers hypothesize occurred before, and have had an influence on, another variable (Gall, Gall, & Borg, 2004). In this study, the following independent variables were identified: time and demographics (age, gender, and occupation). Dependent variables are explained as variables researchers hypothesize occurred after, and as a result of, another variable (Gall, Gall, & Borg, 2004). In this study, the following dependent variable was identified: reflections on an individual’s five signature strengths.

### **Population and Sample**

The population of interest for this research was doctoral candidates in an educational leadership program. University X is a private university in the Midwest.

University X offers undergraduate and graduate degree programs in Baldwin, Kansas as well as Overland Park, Kansas. A total of eight cohort groups of 143 doctoral candidates participated in the study.

### **Sampling Procedures**

This study utilized purposive sampling procedures. Lunenburg and Irby (2008) stated that purposive sampling is a type of nonrandom sampling used when the researcher has experience and knowledge of the independent and dependent variables that drive the sample selection. Purposive sampling allows the researcher to select individuals for a study who are “information rich” with the topic of the researcher (Gall, Gall, & Borg, 2004). Therefore, purposive sampling was used to identify participants within the population who met specific criteria to be included for this analysis. University X doctoral candidates seeking a Doctorate in Educational Leadership were selected to participate in the study. The researcher was a doctoral candidate at the time of the study, but was not included as a participant. Selection criteria included:

1. Study participants were graduates or candidates in the Ed.D. program at University X.
2. University X made no significant academic program changes during the research study.
3. University X utilized the StrengthsFinder 2.0 test in program coursework during the research study.

Doctoral candidates from cohorts 1 – 8 at University X met all of the sampling criteria. University X offered a doctoral degree program in the field of educational leadership at the time of the study.

## **Instrumentation**

According to Neil Carlson (1977), the self-report inventory structure is comprised of numerous questions wherein the survey participant will respond to survey items based on the degree to which that item reflects their behavior. Items can be presented as statements that require the respondent to indicate their level of agreement using a Likert scale (Carlson, 1977). An online survey instrument, Reflections on Signature Strengths in Leadership Questionnaire, was used in this research study to assist in data collection. The online survey instrument selected and used in this study was the Internet tool, SurveyMonkey.com. Using this instrument, the researcher created a custom survey with Likert-type scale items. The measurement tool is discussed in detail below.

The online survey was developed based on the effective elements of leadership and the professional standards for educational leaders as defined by the Interstate School Leaders Licensure Consortium. The survey included four survey items about individual demographics, which included: participant age, occupation, gender, and status as a graduate or current doctoral candidate. Survey items numbered 5 through 27 utilized a Likert-type scale. Response options included: *never*, *rarely*, *sometimes*, *often*, and *always*. Items 5 and 6 addressed participants' general reflections on their five signature strengths. Items 7 - 27 addressed the candidates' reflections of their five signature strengths in various situations based on the ISLLC standards. Items 7 – 8 were linked to ISLLC Standard 1: Setting a widely shared vision for learning (Council of Chief State School Officers, 2008). Items 9 – 11 were linked to ISLLC Standard 2: Developing a school culture and instructional program conducive to student learning and staff professional growth (Council of Chief State School Officers, 2008). Items 12 – 15 were

linked to ISLLC Standard 3: Ensuring effective management of the organization, operation, and resources for a safe, efficient, and effective learning environment (Council of Chief State School Officers, 2008). Items 16 – 19 were linked to ISLLC Standard 4: Collaborating with faculty and community members, responding to diverse community interests and needs, and mobilizing community resources (Council of Chief State School Officers, 2008). Items 20 – 22 were linked to ISLLC Standard 5: Acting with integrity, fairness, and in an ethical manner. Items 23 – 27 were linked to ISLLC Standard 6: Understanding, responding to, and influencing the political, social, legal, and cultural contexts. A copy of the survey is located in Appendix A.

**Measurement.** Research questions were written to address candidates in the University X Ed.D. program. Survey questions were then written to target each research question. An online survey was developed to better reach the targeted population, as study participants reside in various parts of Kansas and Missouri.

Survey participants responded to individual questions based on participant demographics including age, gender, current profession, and graduate status. In order to conduct the data analysis, the ages of the study participants were collapsed into four categories:

- 25 – 30, Category 1
- 31 – 40, Category 2
- 41 – 50, Category 3
- 51 or older, Category 4

Survey participants reported their gender by selecting either male or female. Current profession was reported as either Classroom Teacher, K-12; Building Administrator, K-

12; or District Administrator, K-12. In order to conduct the data analysis, the years of graduation were collapsed into three categories:

- 2007 – 2010, Category 1
- 2011 – 2014, Category 2
- Current Candidates, Category 3

Survey participants responded to individual questions on a Likert-type scale to indicate the frequency of their reflections on their signature strengths. The Likert-type scale rating is follows: *never*, *rarely*, *sometimes*, *often*, and *always*. These responses were then assigned a numerical value of one through five, respectively. A collective measure was computed for the survey items.

Survey items 5 – 27 addressed RQ 1: To what extent do University X doctoral candidates reflect on their five signature strengths when making decisions relating to the Interstate School Leaders Licensure Consortium Professional Standards for Educational Leadership? Survey Item 4, along with items 5 – 27, addressed RQ 2: To what extent does time impact University X doctoral candidates' reflection on their five signature strengths when making decisions relating to the Interstate School Leaders Licensure Consortium Professional Standards for Educational Leadership? Survey Items 1 – 3, along with items 5 – 27, addressed RQ 3: To what extent do demographic variables (age, gender, occupation) impact University X doctoral candidates' reflection on their five signature strengths when making decisions relating to the Interstate School Leaders Licensure Consortium Professional Standards for Educational Leadership?

**Reliability and Validity.** Reliability is explained as the degree to which an instrument consistently measures whatever it is measuring (Lunenberg & Irby, 2008). Carmines and Zeller (1979) claimed that reliability is most at risk when the concept being measured is highly abstract, therefore creating the potential for error when a researcher uses the measurement to make inferences about the abstract concept.

Reliability analyses were not conducted for this study as the concept being measured was not abstract. Participants were asked the frequency with which they reflect on their five signature strengths to address the research questions. In this study, the survey items were low inference and therefore the reliability of the survey measurement is less of an issue (Carmines and Zeller, 1979).

Lunenberg and Irby (2008) explained validity as the degree to which an instrument measures what it purports to measure. To ensure validity of the survey instrument used in this study, the researcher utilized an expert panel to review the categorization of items and provide feedback on the item placement.

The expert panel included five educational leaders. The expert panel was selected based on years of experience in education, allowing them to draw on previous knowledge of educational leadership decision-making. Expert panel members had familiarity with the Clifton StrengthsFinder® instrument either as a test-taker, test administrator, or both. Familiarity with the Clifton StrengthsFinder® instrument was vital to ensuring the validity and reliability of the instrumentation used in this study. The expert panel reviewed the categorization of the questions and provided feedback. Modifications were made to survey as a result of the feedback provided by the expert panel.



## **Data Collection Procedures**

Following approval on September 11, 2014 from the Institutional Review Board (IRB) and University X, doctoral candidates and graduates were sent an e-mail message that included an explanation and a link to the survey instrument, Reflections on Signature Strengths in Leadership Questionnaire. Through this e-mail message, doctoral candidates and graduates were asked to complete an anonymous survey regarding their reflections on the Clifton StrengthsFinder 2.0® typology instrument as they were involved in various leadership-related tasks. The message identified the researcher, explained the research study, and solicited the individual to voluntarily participate in completing the survey. Participants completed the survey in September 2014. A copy of the survey instrument, Reflections on Signature Strengths in Leadership Questionnaire, is located in Appendix A. A copy of the IRB Form is located in Appendix B. A copy of the IRB approval letter is located in Appendix C. The data were collected and compiled by the researcher.

Raw data from the survey instrument was converted to the Statistical Package for Social Sciences (SPSS) format.

## **Data Analysis and Hypothesis Testing**

This study used quantitative methods of data collection and data analysis. Descriptive statistics were used to report summaries of participant response to the survey questions. The researcher used surveymonkey.com, which provided descriptive statistics from the data that included an item analysis reporting frequency of responses and percent of responses. The statistical analysis of the data was conducted using the IBM® SPSS®

Statistics Faculty Pack 22 for Windows. This section includes the research questions, the research hypotheses, and the statistical analyses used to test hypotheses.

### **Data Analysis and Hypothesis Testing for Research Question 1**

Participant responses to survey items five through twenty-seven were used in testing the 23 hypotheses for the first research question: To what extent do University X doctoral candidates reflect on their five signature strengths when making decisions relating to the Interstate School Leaders Licensure Consortium Professional Standards for Educational Leadership?

**Research Hypothesis 1.** University X doctoral candidates often reflect on their five signature strengths.

This research hypothesis was tested by conducting a one sample  $t$  test. The sample mean was tested against a null value of 2. The level of significance was set at .05.

**Research Hypothesis 2.** University X doctoral candidates often reflect on their five signature strengths when making leadership decisions.

This research hypothesis was tested by conducting a one sample  $t$  test. The sample mean was tested against a null value of 2. The level of significance was set at .05.

**Research Hypothesis 3.** University X doctoral candidates often reflect on their five signature strengths when making leadership decisions regarding the success of all students.

This research hypothesis was tested by conducting a one sample  $t$  test. The sample mean was tested against a null value of 2. The level of significance was set at .05.

**Research Hypothesis 4.** University X doctoral candidates often reflect on their five signature strengths when facilitating the development, articulation, implementation, and stewardship of a vision for learning that is shared and supported by the community.

This research hypothesis was tested by conducting a one sample  $t$  test. The sample mean was tested against a null value of 2. The level of significance was set at .05.

**Research Hypothesis 5.** University X doctoral candidates often reflect on their five signature strengths when making leadership decisions that will promote school culture.

This research hypothesis was tested by conducting a one sample  $t$  test. The sample mean was tested against a null value of 2. The level of significance was set at .05.

**Research Hypothesis 6.** University X doctoral candidates often reflect on their five signature strengths when making leadership decisions that will promote an instructional program conducive to student learning.

This research hypothesis was tested by conducting a one sample  $t$  test. The sample mean was tested against a null value of 2. The level of significance was set at .05.

**Research Hypothesis 7.** University X doctoral candidates often reflect on their five signature strengths when making leadership decisions that will promote staff professional growth.

This research hypothesis was tested by conducting a one sample *t* test. The sample mean was tested against a null value of 2. The level of significance was set at .05.

**Research Hypothesis 8.** University X doctoral candidates often reflect on their five signature strengths when making decisions regarding quality management of my organization.

This research hypothesis was tested by conducting a one sample *t* test. The sample mean was tested against a null value of 2. The level of significance was set at .05.

**Research Hypothesis 9.** University X doctoral candidates often reflect on their five signature strengths when making decisions regarding the operations of my organization.

This research hypothesis was tested by conducting a one sample *t* test. The sample mean was tested against a null value of 2. The level of significance was set at .05.

**Research Hypothesis 10.** University X doctoral candidates often reflect on their five signature strengths when making decisions regarding the resources utilized by my organization.

This research hypothesis was tested by conducting a one sample  $t$  test. The sample mean was tested against a null value of 2. The level of significance was set at .05.

**Research Hypothesis 11.** University X doctoral candidates often reflect on their five signature strengths to ensure a safe, efficient, and effective learning environment.

This research hypothesis was tested by conducting a one sample  $t$  test. The sample mean was tested against a null value of 2. The level of significance was set at .05.

**Research Hypothesis 12.** University X doctoral candidates often reflect on their five signature strengths when collaborating with school families.

This research hypothesis was tested by conducting a one sample  $t$  test. The sample mean was tested against a null value of 2. The level of significance was set at .05.

**Research Hypothesis 13.** University X doctoral candidates often reflect on their five signature strengths when collaborating with community members.

This research hypothesis was tested by conducting a one sample  $t$  test. The sample mean was tested against a null value of 2. The level of significance was set at .05.

**Research Hypothesis 14.** University X doctoral candidates often reflect on their five signature strengths when responding to diverse community interests and needs.

This research hypothesis was tested by conducting a one sample  $t$  test. The sample mean was tested against a null value of 2. The level of significance was set at .05.

**Research Hypothesis 15.** University X doctoral candidates often reflect on their five signature strengths when attempting to mobilize community resources.

This research hypothesis was tested by conducting a one sample  $t$  test. The sample mean was tested against a null value of 2. The level of significance was set at .05.

**Research Hypothesis 16.** University X doctoral candidates often reflect on their five signature strengths when making decisions regarding integrity of my organization.

This research hypothesis was tested by conducting a one sample  $t$  test. The sample mean was tested against a null value of 2. The level of significance was set at .05.

**Research Hypothesis 17.** University X doctoral candidates often reflect on their five signature strengths when making decisions regarding issues of fairness.

This research hypothesis was tested by conducting a one sample  $t$  test. The sample mean was tested against a null value of 2. The level of significance was set at .05.

**Research Hypothesis 18.** University X doctoral candidates often reflect on their five signature strengths when making decisions regarding issues of ethics.

This research hypothesis was tested by conducting a one sample  $t$  test. The sample mean was tested against a null value of 2. The level of significance was set at .05.

**Research Hypothesis 19.** University X doctoral candidates often reflect on their five signature strengths when responding to the politics of my organization.

This research hypothesis was tested by conducting a one sample  $t$  test. The sample mean was tested against a null value of 2. The level of significance was set at .05.

**Research Hypothesis 20.** University X doctoral candidates often reflect on their five signature strengths when responding to the social issues of my organization.

This research hypothesis was tested by conducting a one sample  $t$  test. The sample mean was tested against a null value of 2. The level of significance was set at .05.

**Research Hypothesis 21.** University X doctoral candidates often reflect on their five signature strengths when responding to the economic issues of my organization.

This research hypothesis was tested by conducting a one sample  $t$  test. The sample mean was tested against a null value of 2. The level of significance was set at .05.

**Research Hypothesis 22.** University X doctoral candidates often reflect on their five signature strengths when responding to the legal issues of my organization.

This research hypothesis was tested by conducting a one sample  $t$  test. The sample mean was tested against a null value of 2. The level of significance was set at .05.

**Research Hypothesis 23.** University X doctoral candidates often reflect on their five signature strengths when responding to the cultural issues of my organization.

This research hypothesis was tested by conducting a one sample  $t$  test. The sample mean was tested against a null value of 2. The level of significance was set at .05.

### **Data Analysis and Hypothesis Testing for Research Question 2**

Participant responses to survey item 4, along with items 5 – 27, were used in testing the hypothesis for the second research question: To what extent does time impact University X doctoral candidates' reflection on their five signature strengths when making decisions relating to the Interstate School Leaders Licensure Consortium Professional Standards for Educational Leadership?

**Research Hypothesis 24.** Time has a significant impact on University X doctoral candidates' reflection on their five signature strengths when making decisions relating to the Interstate School Leaders Licensure Consortium Professional Standards for Educational Leadership.

Twenty-three one factor ANOVAs were used to test research hypothesis 24, the impact of time on the doctoral candidates' reflections on their signature strengths. The reflections on the signature strengths were measured by survey items five through twenty-seven. For each ANOVA, the sample mean 2007 – 2010 graduates was compared to the mean of the 2011 – 2014 graduates and the mean of the current candidates. The level of significance was set at .05.

### **Data Analysis and Hypothesis Testing for Research Question 3**

Responses to survey items one, two, and three, along with items 5 – 27, were used in testing the hypotheses for the third research question: To what extent do demographic variables (age, current profession, and gender) impact University X doctoral candidates' reflection on their five signature strengths when making decisions relating to the Interstate School Leaders Licensure Consortium Professional Standards for Educational Leadership?



**Research Hypothesis 25.** The demographic variable of age significantly impacts University X doctoral candidates' reflection on their five signature strengths when making decisions relating to the Interstate School Leaders Licensure Consortium Professional Standards for Educational Leadership.

Twenty-three one factor ANOVAs were used to test research hypothesis 25, the impact of age on the doctoral candidates' reflections on their signature strengths. The reflections on the signature strengths were measured by survey items five through twenty-seven. For each ANOVA the sample mean for ages 25 – 30 was compared to the sample mean for ages 31 – 40, the sample mean for ages 41 – 50, and the sample mean for ages 51 or older. The level of significance was set at .05.

**Research Hypothesis 26.** The demographic variable of current profession significantly impacts University X doctoral candidates' reflection on their five signature strengths when making decisions relating to the Interstate School Leaders Licensure Consortium Professional Standards for Educational Leadership.

Twenty-three one factor ANOVAs were used to test research hypothesis 26, the impact of current profession on the doctoral candidates' reflections on their signature strengths. The reflections on the signature strengths were measured by survey items five through twenty-seven. For each ANOVA the sample mean for Classroom Teacher, K – 12 was compared to the sample mean for Building Administrator, K – 12 and the sample mean for District Administrator, K – 12. The level of significance was set at .05.

**Research Hypothesis 27:** The demographic variable of gender significantly impacts University X doctoral candidates' reflection on their five signature strengths

when making decisions relating to the Interstate School Leaders Licensure Consortium Professional Standards for Educational Leadership.

Twenty-three two sample *t* tests were used to test research hypothesis 27, the impact of gender on the doctoral candidates' reflections on their signature strengths. The reflections on the signature strengths were measured by survey items five through twenty-seven. For each test the sample mean for males was compared with the sample mean for females. The level of significance was set at .05.

### **Limitations**

Inherent in any study is a set of limitations, or potential factors that could influence the results of the study and are out of the control of the researcher (Lunenberg & Irby, 2008). Participant memory was a limitation in this study. Study participants had to recall their five signature strengths from doctoral coursework at University X. Participants in this study completed doctoral coursework one to seven years prior to the current study.

### **Summary**

This study was a quantitative analysis that examined University X doctoral candidates' reflections of their five signature strengths as related to the Interstate School Leaders Licensure Consortium Professional Standards for Educational Leadership. Data obtained from the online survey, Reflections of Signature Strengths in Leadership Questionnaire, were examined and are discussed in Chapter four. Chapter four contains the findings from the data analysis. Chapter five includes the study summary, overview of the problem, purpose statement and research questions, review of methodology, major findings, findings related to the literature, conclusions, implications for action, recommendations, and concluding remarks.

## **Chapter Four**

### **Results**

As stated in chapter one, the study reported here examined and evaluated University X doctoral candidates' reflection on their five signature strengths when making decisions relating to the Interstate School Leaders Licensure Consortium Professional Standards for Educational Leadership. The study also examined the impact of time as well as the demographic variables of age, current profession, and gender as they relate to doctoral candidates' reflection on their five signature strengths when making decisions relating to the Interstate School Leaders Licensure Consortium Professional Standards for Educational Leadership. In this chapter, the results of the quantitative analysis are presented for each of the study's research questions. The following sections include hypothesis testing, and contains results from the 23 one sample *t* tests for the mean to address RQ1, the 23 two sample *t* tests to address RQ 2, and the 23 one factor ANOVAs to address RQ 3. Chapter four concludes with a section on additional descriptive analyses and a brief summary.

The target population for this research was limited to doctoral candidates in cohorts 1 – 8 from the University X Ed.D. program. This study did not include cohorts established following cohort 8. Study participants were either graduates or currently enrolled in the Ed.D. program. At the time of this study, participants were employed in

the field of education in one of three positions: Classroom Teacher, K – 12; Building Administrator, K – 12; or District Administrator, K – 12. Study participants were age 25 or older.

The Reflections on Signature Strengths in Leadership survey was used to measure doctoral candidates' reflection on their five signature strengths when making decisions relating to the Interstate School Leaders Licensure Consortium Professional Standards for Educational Leadership. Doctoral candidate's reflections were collected using a Likert-type scale with five intensity levels: *Never*, *Rarely*, *Sometimes*, *Often*, and *Always*. The Likert-type scale rating is follows: *always* = 5, *often* = 4, *sometimes* = 3, *rarely* = 2, and *never* = 1. The mean for each scale ranges between one and five. For survey items five – twenty-seven, a mean closer to one indicates low levels of frequency for the item while a mean closer to five indicates high levels of frequency for that item.

Research hypotheses 1 – 24 were tested using the one sample *t* test to compare the mean responses in the survey regarding candidates' reflections of their five signature strengths as they relate to leadership decisions. Research hypothesis 24 was tested using 23 one factor ANOVAs to determine the impact of time on candidates' reflections of their five signature strengths as they relate to leadership decisions. Research hypothesis 25 was tested using 23 one factor ANOVAs to determine the impact of age on candidates' reflections of their five signature strengths as they relate to leadership decisions. Research hypothesis 26 was tested using 23 one factor ANOVAs to determine the impact of profession on candidates' reflections of their five signature strengths as they relate to leadership decisions. Research hypothesis 27 was tested using 23 two

sample  $t$  tests to determine the impact of gender on candidates' reflections of their five signature strengths as they relate to leadership decisions.

### **Hypothesis Testing**

**RQ1.** To what extent do University X doctoral candidates reflect on their five signature strengths when making decisions relating to the Interstate School Leaders Licensure Consortium Professional Standards for Educational Leadership?

**Research Hypothesis 1.** University X doctoral candidates often reflect on their five signature strengths.

A one sample  $t$  test was conducted to test H1. The mean was compared to a null value of 2. The level of significance was set at .05. The results of the one sample  $t$  test indicated a statistically significant difference between the two values,  $t = 6.87$ ,  $df = 34$ ,  $p = .00$ . The sample mean ( $M = 3.31$ ,  $SD = 1.13$ ) was higher than the null value (2). Survey respondents reported they reflected on their five signature strengths sometimes or often.

**Research Hypothesis 2.** University X doctoral candidates often reflect on their five signature strengths when making leadership decisions.

A one sample  $t$  test was conducted to test H2. The mean was compared to a null value of 2. The level of significance was set at .05. The results of the one sample  $t$  test indicated a statistically significant difference between the two values,  $t = 6.11$ ,  $df = 34$ ,  $p = .00$ . The sample mean ( $M = 3.23$ ,  $SD = 1.19$ ) was higher than the null value (2). Survey respondents reported they reflected on their five signature strengths when making leadership decisions sometimes or often.

**Research Hypothesis 3.** University X doctoral candidates often reflect on their five signature strengths when making leadership decisions regarding the success of all students.

A one sample  $t$  test was conducted to test H3. The mean was compared to a null value of 2. The level of significance was set at .05. The results of the one sample  $t$  test indicated a statistically significant difference between the two values,  $t = 6.96$ ,  $df = 34$ ,  $p = .00$ . The sample mean ( $M = 3.37$ ,  $SD = 1.16$ ) was higher than the null value (2).

Survey respondents reported they reflected on their five signature strengths when making leadership decisions regarding the success of all students sometimes or often.

**Research Hypothesis 4.** University X doctoral candidates often reflect on their five signature strengths when facilitating the development, articulation, implementation, and stewardship of a vision for learning that is shared and supported by the community.

A one sample  $t$  test was conducted to test H4. The mean was compared to a null value of 2. The level of significance was set at .05. The results of the one sample  $t$  test indicated a statistically significant difference between the two values,  $t = 7.21$ ,  $df = 33$ ,  $p = .00$ . The sample mean ( $M = 3.50$ ,  $SD = 1.21$ ) was higher than the null value (2).

Survey respondents reported they reflected on their five signature strengths when facilitating the development, articulation, implementation, and stewardship of a vision for learning that is shared and supported by the community sometimes or often.

**Research Hypothesis 5.** University X doctoral candidates often reflect on their five signature strengths when making leadership decisions that will promote school culture.

A one sample  $t$  test was conducted to test H5. The mean was compared to a null value of 2. The level of significance was set at .05. The results of the one sample  $t$  test indicated a statistically significant difference between the two values,  $t = 7.06$ ,  $df = 34$ ,  $p = .00$ . The sample mean ( $M = 3.46$ ,  $SD = 1.22$ ) was higher than the null value (2).

Survey respondents reported they reflected on their five signature strengths when making leadership decisions that will promote school culture sometimes or often.

**Research Hypothesis 6.** University X doctoral candidates often reflect on their five signature strengths when making leadership decisions that will promote an instructional program conducive to student learning.

A one sample  $t$  test was conducted to test H6. The mean was compared to a null value of 2. The level of significance was set at .05. The results of the one sample  $t$  test indicated a statistically significant difference between the two values,  $t = 6.72$ ,  $df = 34$ ,  $p = .00$ . The sample mean ( $M = 3.31$ ,  $SD = 1.16$ ) was higher than the null value (2).

Survey respondents reported they reflected on their five signature strengths when making leadership decisions that will promote an instructional program conducive to student learning sometimes or often.

**Research Hypothesis 7.** University X doctoral candidates often reflect on their five signature strengths when making leadership decisions that will promote staff professional growth.

A one sample  $t$  test was conducted to test H7. The mean was compared to a null value of 2. The level of significance was set at .05. The results of the one sample  $t$  test indicated a statistically significant difference between the two values,  $t = 6.99$ ,  $df = 34$ ,

$p = .00$ . The sample mean ( $M = 3.34$ ,  $SD = 1.14$ ) was higher than the null value (2).

Survey respondents reported they reflected on their five signature strengths when making leadership that will promote staff professional growth sometimes or often.

**Research Hypothesis 8.** University X doctoral candidates often reflect on their five signature strengths when making decisions regarding quality management of my organization.

A one sample  $t$  test was conducted to test H8. The mean was compared to a null value of 2. The level of significance was set at .05. The results of the one sample  $t$  test indicated a statistically significant difference between the two values,  $t = 7.25$ ,  $df = 34$ ,  $p = .00$ . The sample mean ( $M = 3.40$ ,  $SD = 1.14$ ) was higher than the null value (2).

Survey respondents reported they reflected on their five signature strengths when making decisions regarding quality management of my organization sometimes or often.

**Research Hypothesis 9.** University X doctoral candidates often reflect on their five signature strengths when making decisions regarding the operations of my organization.

A one sample  $t$  test was conducted to test H9. The mean was compared to a null value of 2. The level of significance was set at .05. The results of the one sample  $t$  test indicated a statistically significant difference between the two values,  $t = 6.20$ ,  $df = 32$ ,  $p = .00$ . The sample mean ( $M = 3.27$ ,  $SD = 1.18$ ) was higher than the null value (2).

Survey respondents reported they reflected on their five signature strengths when making decisions the operations of my organization sometimes or often.



**Research Hypothesis 10.** University X doctoral candidates often reflect on their five signature strengths when making decisions regarding the resources utilized by my organization.

A one sample  $t$  test was conducted to test H10. The mean was compared to a null value of 2. The level of significance was set at .05. The results of the one sample  $t$  test indicated a statistically significant difference between the two values,  $t = 5.72$ ,  $df = 32$ ,  $p = .00$ . The sample mean ( $M = 3.33$ ,  $SD = 1.34$ ) was higher than the null value (2). Survey respondents reported they reflected on their five signature strengths when making decisions the resources utilized by my organization sometimes or often.

**Research Hypothesis 11.** University X doctoral candidates often reflect on their five signature strengths to ensure a safe, efficient, and effective learning environment.

A one sample  $t$  test was conducted to test H11. The mean was compared to a null value of 2. The level of significance was set at .05. The results of the one sample  $t$  test indicated a statistically significant difference between the two values,  $t = 6.30$ ,  $df = 32$ ,  $p = .00$ . The sample mean ( $M = 3.33$ ,  $SD = 1.22$ ) was higher than the null value (2). Survey respondents reported they reflected on their five signature strengths to ensure a safe, efficient, and effective learning environment sometimes or often.

**Research Hypothesis 12.** University X doctoral candidates often reflect on their five signature strengths when collaborating with school families.

A one sample  $t$  test was conducted to test H12. The mean was compared to a null value of 2. The level of significance was set at .05. The results of the one sample  $t$  test indicated a statistically significant difference between the two values,  $t = 6.16$ ,  $df = 33$ ,

$p = .00$ . The sample mean ( $M = 3.18$ ,  $SD = 1.11$ ) was higher than the null value (2).

Survey respondents reported they reflected on their five signature strengths when collaborating with school families sometimes or often.

**Research Hypothesis 13.** University X doctoral candidates often reflect on their five signature strengths when collaborating with community members.

A one sample  $t$  test was conducted to test H13. The mean was compared to a null value of 2. The level of significance was set at .05. The results of the one sample  $t$  test indicated a statistically significant difference between the two values,  $t = 6.16$ ,  $df = 34$ ,  $p = .00$ . The sample mean ( $M = 3.17$ ,  $SD = 1.12$ ) was higher than the null value (2).

Survey respondents reported they reflected on their five signature strengths when collaborating with community members sometimes or often.

**Research Hypothesis 14.** University X doctoral candidates often reflect on their five signature strengths when responding to diverse community interests and needs.

A one sample  $t$  test was conducted to test H14. The mean was compared to a null value of 2. The level of significance was set at .05. The results of the one sample  $t$  test indicated a statistically significant difference between the two values,  $t = 5.70$ ,  $df = 34$ ,  $p = .00$ . The sample mean ( $M = 3.11$ ,  $SD = 1.16$ ) was higher than the null value (2).

Survey respondents reported they reflected on their five signature strengths when responding to diverse community interests and needs sometimes or often.

**Research Hypothesis 15:** University X doctoral candidates often reflect on their five signature strengths when attempting to mobilize community resources.

A one sample  $t$  test was conducted to test H15. The mean was compared to a null value of 2. The level of significance was set at .05. The results of the one sample  $t$  test indicated a statistically significant difference between the two values,  $t = 7.06$ ,  $df = 34$ ,  $p = .00$ . The sample mean ( $M = 3.51$ ,  $SD = 1.27$ ) was higher than the null value (2). Survey respondents reported they reflected on their five signature strengths when attempting to mobilize community resources sometimes or often.

**Research Hypothesis 16.** University X doctoral candidates often reflect on their five signature strengths when making decisions regarding integrity of my organization.

A one sample  $t$  test was conducted to test H16. The mean was compared to a null value of 2. The level of significance was set at .05. The results of the one sample  $t$  test indicated a statistically significant difference between the two values,  $t = 6.56$ ,  $df = 34$ ,  $p = .00$ . The sample mean ( $M = 3.46$ ,  $SD = 1.31$ ) was higher than the null value (2). Survey respondents reported they reflected on their five signature strengths when making decisions regarding integrity of my organization sometimes or often.

**Research Hypothesis 17.** University X doctoral candidates often reflect on their five signature strengths when making decisions regarding issues of fairness.

A one sample  $t$  test was conducted to test H17. The mean was compared to a null value of 2. The level of significance was set at .05. The results of the one sample  $t$  test indicated a statistically significant difference between the two values,  $t = 6.35$ ,  $df = 34$ ,  $p = .00$ . The sample mean ( $M = 3.46$ ,  $SD = 1.36$ ) was higher than the null value (2). Survey respondents reported they reflected on their five signature strengths when making decisions regarding issues of fairness sometimes or often.

**Research Hypothesis 18.** University X doctoral candidates often reflect on their five signature strengths when making decisions regarding issues of ethics.

A one sample  $t$  test was conducted to test H18. The mean was compared to a null value of 2. The level of significance was set at .05. The results of the one sample  $t$  test indicated a statistically significant difference between the two values,  $t = 6.93$ ,  $df = 33$ ,  $p = .00$ . The sample mean ( $M = 3.29$ ,  $SD = 1.09$ ) was higher than the null value (2). Survey respondents reported they reflected on their five signature strengths when making decisions regarding issues of ethics sometimes or often.

**Research Hypothesis 19.** University X doctoral candidates often reflect on their five signature strengths when responding to the politics of my organization.

A one sample  $t$  test was conducted to test H19. The mean was compared to a null value of 2. The level of significance was set at .05. The results of the one sample  $t$  test indicated a statistically significant difference between the two values,  $t = 6.44$ ,  $df = 33$ ,  $p = .00$ . The sample mean ( $M = 3.32$ ,  $SD = 1.20$ ) was higher than the null value (2). Survey respondents reported they reflected on their five signature strengths when responding to the politics of their organization sometimes or often.

**Research Hypothesis 20.** University X doctoral candidates often reflect on their five signature strengths when responding to the social issues of my organization.

A one sample  $t$  test was conducted to test H20. The mean was compared to a null value of 2. The level of significance was set at .05. The results of the one sample  $t$  test indicated a statistically significant difference between the two values,  $t = 6.48$ ,  $df = 33$ ,

$p = .00$ . The sample mean ( $M = 3.18$ ,  $SD = 1.06$ ) was higher than the null value (2).

Survey respondents reported they reflected on their five signature strengths when responding to the social issues of their organization sometimes or often.

**Research Hypothesis 21.** University X doctoral candidates often reflect on their five signature strengths when responding to the economic issues of my organization.

A one sample  $t$  test was conducted to test H21. The mean was compared to a null value of 2. The level of significance was set at .05. The results of the one sample  $t$  test indicated a statistically significant difference between the two values,  $t = 6.08$ ,  $df = 34$ ,  $p = .00$ . The sample mean ( $M = 3.28$ ,  $SD = 1.25$ ) was higher than the null value (2).

Survey respondents reported they reflected on their five signature strengths when responding to the economic issues of their organization sometimes or often.

**Research Hypothesis 22.** University X doctoral candidates often reflect on their five signature strengths when responding to the legal issues of my organization.

A one sample  $t$  test was conducted to test H22. The mean was compared to a null value of 2. The level of significance was set at .05. The results of the one sample  $t$  test indicated a statistically significant difference between the two values,  $t = 6.69$ ,  $df = 34$ ,  $p = .00$ . The sample mean ( $M = 3.34$ ,  $SD = 1.19$ ) was higher than the null value (2).

Survey respondents reported they reflected on their five signature strengths when responding to the legal issues of their organization sometimes or often.

**Research Hypothesis 23.** University X doctoral candidates often reflect on their five signature strengths when responding to the cultural issues of my organization.

A one sample  $t$  test was conducted to test H23. The mean was compared to a null value of 2. The level of significance was set at .05. The results of the one sample  $t$  test indicated a statistically significant difference between the two values,  $t = 7.41$ ,  $df = 31$ ,  $p = .00$ . The sample mean ( $M = 3.41$ ,  $SD = 1.07$ ) was higher than the null value (2). Survey respondents reported they reflected on their five signature strengths when responding to the cultural issues of their organization sometimes or often.

**RQ 2.** To what extent does time impact University X doctoral candidates' reflection on their five signature strengths when making decisions relating to the Interstate School Leaders Licensure Consortium Professional Standards for Educational Leadership?

**Research Hypothesis 24:** Time has a significant impact on University X doctoral candidates' reflection on their five signature strengths when making decisions relating to the Interstate School Leaders Licensure Consortium Professional Standards for Educational Leadership.

Twenty-three ANOVAs were used to test H24. The categorical variable used to group candidates' reflections was time. The categories were as follows:

- 2007 – 2010, Category 1
- 2011 – 2014, Category 2
- Current Candidates, Category 3

The level of significance was set at .05. For all items from the survey the results of the analysis indicated there was not a statistically significant difference between at least two of the means. Table D1 contains the statistics for those hypotheses tests. No follow-up post hoc was warranted.

**RQ 3.** To what extent do demographic variables (age, current profession, and gender) impact University X doctoral candidates' reflection on their five signature strengths when making decisions relating to the Interstate School Leaders Licensure Consortium Professional Standards for Educational Leadership?

**Research Hypothesis 25.** The demographic variable of age significantly impacts University X doctoral candidates' reflection on their five signature strengths when making decisions relating to the Interstate School Leaders Licensure Consortium Professional Standards for Educational Leadership.

Twenty-three ANOVAs were used to test H25. The categorical variable used to group candidates' reflections was age. The categories were as follows:

- 25 – 30, Category 1
- 31 – 40, Category 2
- 41 – 50, Category 3
- 51 or older, Category 4

The level of significance was set at .05. For all items from the survey the results of the analysis indicated there was not a statistically significant difference between at least two of the means. Table D2 contains the statistics for those hypotheses tests. No follow-up post hoc was warranted.

**Research Hypothesis 26.** The demographic variable of current profession significantly impacts University X doctoral candidates' reflection on their five signature strengths when making decisions relating to the Interstate School Leaders Licensure Consortium Professional Standards for Educational Leadership.

Twenty-three ANOVAs were used to test H26. The categorical variable used to group candidates' reflections was current profession. The categories were as follows: Classroom Teacher, K-12; Building Administrator, K-12; and District Administrator, K-12. The level of significance was set at .05. For all items from the survey, except items 15, 17, and 23, the results of the analysis indicated there was not a statistically significant difference between at least two of the means. Table D3 contains the statistics for those hypotheses tests. No follow-up post hoc was warranted.

The results of the analysis using survey item 15 was marginally significant, indicating there were differences among the means,  $F = 2.60$ ,  $df = 2, 29$ ,  $p = .09$ . Although the difference was not statistically significant, the average response ( $M = 4.25$ ,  $SD = .96$ ) for Classroom Teacher, K-12, was higher than the average response ( $M = 2.8$ ,  $SD = 1.15$ ) for District Administrator, K-12. Survey item 15 asked respondents if they reflected on their signature strengths when making decisions regarding safe, effective, and efficient learning environments.

The results of the analysis using survey item 17 was marginally significant, indicating there were differences between the means,  $F = 2.88$ ,  $df = 2, 30$ ,  $p = .07$ . Although the difference was not statistically significant, the average response ( $M = 3.60$ ,  $SD = .55$ ) for Classroom Teacher, K-12, was higher than the average response ( $M = 2.67$ ,  $SD = 1.05$ ) for District Administrator, K-12. Survey item 17 asked respondents if they reflected on their signature strengths when making decisions regarding collaboration with community members.

The results of the analysis using survey item 23 was marginally significant, indicating there were differences between the means,  $F = 2.91$ ,  $df = 2, 30$ ,  $p = .07$ .



Although the difference was not statistically significant, the average response ( $M = 3.80$ ,  $SD = .84$ ) for Classroom Teacher, K-12, was higher than the average response ( $M = 2.80$ ,  $SD = 1.01$ ) for District Administrator, K-12. Survey item 23 asked respondents if they reflected on their signature strengths when responding to the politics of their organizations.

**Research Hypothesis 27.** The demographic variable of gender significantly impacts University X doctoral candidates' reflection on their five signature strengths when making decisions relating to the Interstate School Leaders Licensure Consortium Professional Standards for Educational Leadership.

Twenty-three two sample  $t$  tests were used to test H27. The categorical variable used to group candidates' reflections was gender. The categories for gender were male and female. The level of significance was set at .05. For all items from the survey the results of the analysis indicated there was not a statistically significant difference between at least two of the means. Table D4 contains the statistics for those hypotheses tests. No follow-up post hoc was warranted.

### **Summary**

This chapter presented the results of the one sample  $t$  test for the mean, the two sample  $t$  test for the mean, and the one factor ANOVAs used to address the research questions. Results of the hypothesis testing indicated that doctoral candidates' reflect on their five signature strengths when making decisions related to the Interstate School Leaders Licensure Consortium Professional Standards for Educational Leadership sometimes or often. The results indicated that time does not impact doctoral candidates' reflections when making decisions related to the Interstate School Leaders Licensure

Consortium Professional Standards for Educational Leadership. The results also indicated that demographics (age, current profession, and gender) do not impact doctoral candidates reflections when making decisions related to the Interstate School Leaders Licensure Consortium Professional Standards for Educational Leadership. Chapter five contains findings from the study, provides connections to the literature, discusses implications for action, and makes recommendations for future study.

## Chapter Five

### Interpretation and Recommendations

The first chapter of this study introduced the background, purpose and significance of the study. The second chapter presented a review of relevant literature, including the theories of leadership and how the study of leadership has been applied in the field of education, specifically as it relates to typology instruments utilized in the workplace. The third chapter reviewed the methodology of the study, including the sampling procedures, instrumentation used, data collection procedures, data analysis, and hypothesis testing. The fourth chapter included the results of descriptive statistics and hypotheses testing. This chapter presents a brief overview of the problem, purpose, research questions, methodology, and major findings of the study. Additionally, findings related to relevant literature on leadership theories and typology instruments, implications for action, and recommendations for future research are addressed.

#### Study Summary

In this section, a brief overview is presented of chapters one through four of the study. The overview contains a review of the problem, the purpose statement and research questions, review of methodology, and the major findings of the study.

**Overview of the Problem.** School leadership is important to the success of a school district in the field of K-12 education. The research in the area of leadership has been focused on the various types of leadership theories and the behaviors of leaders that positively impact a school. Multiple theories of leadership are recognized by educators as having a positive impact on organization. Research on leadership in education has largely been focused on theories of leadership and behaviors of leaders, but not the

individual characteristics, or strengths, of the leaders themselves. Little research has been conducted to determine if educational leaders reflect on their personal leadership qualities.

**Purpose Statement and Research Questions.** The first purpose of this study was to determine if doctoral candidates reflect on their five signature strengths when making decisions about situations related to the Interstate School Leaders Licensure Consortium Professional Standards for Educational Leadership. The second purpose of the study was to examine the potential impact of time as it relates to leaders' reflection on their five signature strengths. The third and final purpose was to determine if demographic variables (age, current profession, and gender) impact leaders' reflection on their five signature strengths when making decisions. To investigate these ideas, three research questions guided the study: (1) To what extent do Baker University doctoral candidates reflect on their five signature strengths when making decisions relating to the Interstate School Leaders Licensure Consortium Professional Standards for Educational Leadership? (2) To what extent does time impact Baker University doctoral candidates' reflection on their five signature strengths when making decisions relating to the Interstate School Leaders Licensure Consortium Professional Standards for Educational Leadership? and (3) To what extent do demographic variables (age, current profession, and gender) impact Baker University doctoral candidates' reflection on their five signature strengths when making decisions relating to the Interstate School Leaders Licensure Consortium Professional Standards for Educational Leadership?

**Review of the Methodology.** This study was a quantitative research study. Data was collected from 126 school leaders who were participants in the first eight cohort

groups of the Doctorate of Educational Leadership Program at University X. The quantitative data were collected using the online survey instrument, Survey Monkey. The 27-item questionnaire asked doctoral candidates to reflect on their signature strengths, per results of the Clifton StrengthsFinder 2.0® typology instrument, as they make decisions related to the ISLLC standards. Demographic data that was collected included: age, current profession, gender, and year of graduation or current enrollment status. The demographic data collected from each participant was used in defining multiple subgroups.

**Major Findings.** The results of the research indicated that University X doctoral candidates' reflect on their five signature strengths when making decisions related to the Interstate School Leaders Licensure Consortium Professional Standards for Educational Leadership sometimes or often. The variable of time did not impact University X doctoral candidates' reflections when making decisions related to the Interstate School Leaders Licensure Consortium Professional Standards for Educational Leadership. The research indicated that demographics (age, current profession, and gender) had marginally significant differences in University X doctoral candidates' reflections when making decisions related to the Interstate School Leaders Licensure Consortium Professional Standards for Educational Leadership.

### **Findings Related to the Literature**

The goal of this study was to extend the current knowledge of typology instruments as they apply to the field of education. Chapter two provided an extensive description of literature related to this study. This section relates the findings of this study to the literature presented in chapter two.

Research question one asked to what extent do University X doctoral candidates reflect on their five signature strengths when making decisions relating to the Interstate School Leaders Licensure Consortium Professional Standards for Educational Leadership? The research found that University X doctoral candidates' reflect on their five signature strengths when making decisions related to the Interstate School Leaders Licensure Consortium Professional Standards for Educational Leadership sometimes or often. These findings are linked to previous literature in the area of reflective practice. Kolb (1984) noted that a key behavior of educational leaders is engaging in reflective practice. Reflective practice is important to the development of educational leaders as it enables the leader to learn from experience. Developing reflective practice means developing ways of reviewing our own actions so that it becomes a routine and a process by which we might continuously develop (Kolb, 1984). Avolio, Avey, and Quisenberry (2010) stated that reflective practice provides an incredible development opportunity for those in leadership positions. The current study found that educational leaders are engaging in reflective practice as they sometimes or often reflect on their five signature strengths.

Research question two asked to what extent does time impact Baker University doctoral candidates' reflection on their five signature strengths when making decisions relating to the Interstate School Leaders Licensure Consortium Professional Standards for Educational Leadership? The research found that the variable of time did not impact University X doctoral candidates' reflections. The current research extends the existing literature by eliminating time as factor that could potentially impact this reflective practice.

Research question three asked to what extent do demographic variables (age, current profession, and gender) impact Baker University doctoral candidates' reflection on their five signature strengths when making decisions relating to the Interstate School Leaders Licensure Consortium Professional Standards for Educational Leadership? The research indicated that demographics did not impact University X doctoral candidates' reflections. Prior to developing the Clifton StrengthsFinder® instrument, Gallup surveyed 198,000 employees regarding the utilization of personal strengths in business (Buckingham & Clifton, 2001). The employees surveyed were not representative of a specific demographic. The results of the survey led to the development of the Clifton StrengthsFinder® typology instrument. The instrument identified 34 human strengths that are not particular to any specific group, but rather any individual participating in the assessment (Rath, 2007). The current study indicates that an individuals' reflections on the strengths identified by the Clifton StrengthsFinder® typology instrument are not impacted by age, profession, or gender.

### **Conclusions**

As stated in chapter one, educational leaders in University X's doctoral program are engaging in coursework regarding individual strengths and reflecting on these strengths as they apply to the field of education. This study's focus was doctoral candidates' reflections on their five signature strengths when making decisions relating to the Interstate School Leaders Licensure Consortium Professional Standards for Educational Leadership. Implications for action and recommendations for future research are included in this section based on the findings of this study.

**Implications for Action.** Doctoral candidates and graduates took the Clifton StrengthsFinder® instrument and engaged in reflections on their signature strengths as part of course assignment at University X (Professor A, personal communication). The research indicated that doctoral candidates' reflect on their signature strengths sometimes or often. It is recommended that University X Ed.D. faculty continue to administer the Clifton StrengthsFinder® instrument and engage doctoral candidates in reflections on their individual strengths as they apply to situations in the field of educational leadership.

**Recommendations for Future Research.** This research added to the literature related to typology instruments and reflective practice in the field of educational leadership. At the time of this study, University X doctoral candidates in cohorts 1 – 8 participated in the research. Since that time, University X has continued to enroll doctoral candidates into the Ed.D. program, creating additional cohorts. A recommendation for future study would be to replicate this study with doctoral candidates established following cohort 8.

A recommendation for future research would be to replicate this study at another university similar to University X. University X was selected as it fit the criteria for the research study. Future studies could be conducted at universities offering a degree program in Educational Leadership that emphasized typology instruments and reflective practice as part of the program coursework.

This research study focused on the use of the Clifton StrengthsFinder® instrument as a tool for reflective practice. In addition to the Clifton StrengthsFinder®, University X doctoral candidates also took the Myers-Briggs Type Indicator and the Keirsey Temperament Sorter. A recommendation for future study would be to replicate



this research utilizing a different typology instrument, either the Myers-Briggs Type Indicator or the Keirsey Temperament Sorter, as a tool for reflective practice.

A further recommendation for future research includes the demographic variables for this study. The current research was limited to professionals in K – 12 education. Future studies could include professionals in higher education.

**Concluding Remarks.** Educational leaders implement certain actions or behaviors to positively impact their organizations. Additionally, educational leaders engage in reflective practice as a means of developing professionally. The results of this study indicate doctoral candidates' reflect on their five signature strengths when making decisions relating to the Interstate School Leaders Licensure Consortium Professional Standards for Educational Leadership. An educational leader will reflect on individual strengths as part of their role in a K-12 setting.

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## Appendices

**Appendix A: Reflections on Signature Strengths in Leadership Questionnaire**

**Reflections on Signature Strengths in Leadership**

You are invited to participate in a research study conducted by doctoral candidate, Erin Smith. The purpose of this study was to determine the perceived effectiveness of the StrengthsFinder 2.0 typology instrument in the development of an individual as an educational leader. A second purpose was to determine whether educational leaders reflected on their signature strengths when making decisions. Third, the study looked at the potential impact of time as it relates to leaders' reflection on their five signature strengths when making decisions. The fourth purpose was to determine if demographic variables (age, gender, occupation) impact leaders' reflection on their five signature strengths when making decisions. Your privacy is important; your answers will be combined with other participants and reported in summary form. Your completion and submission of the survey will indicate your consent to participate and permission to use the information that you have provided in my study. Thank you for your time.

---

**1. Age:**

- 25-30
- 31-40
- 41-50
- 51-60
- 61 or older

**2. Current Profession:**

- Current Profession: Classroom Teacher K-12
- Building Administrator K-12
- District Administrator K-12

**3. Gender:**

- Male
- Female

**4. Year of Graduation:**

- Year of Graduation: 2007
- 2008
- 2009
- 2010
- 2011
- 2012
- 2013
- 2014
- I am currently enrolled as a doctoral candidate.

**5. I reflect on my signature strengths.**

- Never     Rarely     Sometimes     Often     Always

**6. I reflect on my signature strengths when making leadership decisions.**

- Never     Rarely     Sometimes     Often     Always

**7. I reflect on my signature strengths when making leadership decisions regarding the success of all students.**

- Never     Rarely     Sometimes     Often     Always

**8. I reflect on my signature strengths when facilitating the development, articulation, implementation, and stewardship of a vision for learning that is shared and supported by the community.**

- Never     Rarely     Sometimes     Often     Always

**9. I reflect on my signature strengths when making leadership decisions that will promote school culture.**

- Never     Rarely     Sometimes     Often     Always

**10. I reflect on my signature strengths when making leadership decisions that will promote an instructional program conducive to student learning.**

- Never     Rarely     Sometimes     Often     Always

**11. I reflect on my signature strengths when making leadership decisions that will promote staff professional growth.**

- Never     Rarely     Sometimes     Often     Always

**12. I reflect on my signature strengths when making decisions regarding the quality management of my organization.**

- Never     Rarely     Sometimes     Often     Always

**13. I reflect on my signature strengths when making decisions regarding the operations of my organization.**

- Never     Rarely     Sometimes     Often     Always

**14. I reflect on my signature strengths when making decisions regarding the resources utilized by my organization.**

- Never     Rarely     Sometimes     Often     Always

**15. I reflect on my signature strengths to ensure a safe, efficient, and effective learning environment.**

Never     Rarely     Sometimes     Often     Always

**16. I reflect on my signature strengths when collaborating with school families.**

Never     Rarely     Sometimes     Often     Always

**17. I reflect on my signature strengths when collaborating with community members.**

Never     Rarely     Sometimes     Often     Always

**18. I reflect on my signature strengths when responding to diverse community interests and needs.**

Never     Rarely     Sometimes     Often     Always

**19. I reflect on my signature strengths when attempting to mobilize community resources.**

Never     Rarely     Sometimes     Often     Always

**20. I reflect on my signature strengths when making decisions regarding the integrity of my organization.**

Never     Rarely     Sometimes     Often     Always

**21. I reflect on my signature strengths when making decisions regarding issues of fairness.**

- Never     Rarely     Sometimes     Often     Always

**22. I reflect on my signature strengths when making decisions regarding issues of ethics.**

- Never     Rarely     Sometimes     Often     Always

**23. I reflect on my signature strengths when responding to the politics of my organization.**

- Never     Rarely     Sometimes     Often     Always

**24. I reflect on my signature strengths when responding to the social issues of my organization.**

- Never     Rarely     Sometimes     Often     Always

**25. I reflect on my signature strengths when responding to the economic issues of my organization.**

- Never     Rarely     Sometimes     Often     Always

**26. I reflect on my signature strengths when responding to the legal issues of my organization.**

- Never     Rarely     Sometimes     Often     Always



**27. I reflect on my signature strengths when responding to the cultural issues of my organization.**

- Never     Rarely     Sometimes     Often     Always

**Appendix B: IRB Form**

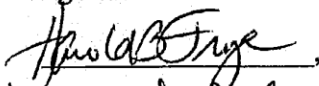
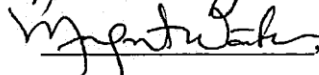
SCHOOL OF EDUCATION  
GRADUATE DEPARTMENT

Date: \_\_\_\_\_  
IRB PROTOCOL NUMBER \_\_\_\_\_  
(IRB USE ONLY)

IRB REQUEST  
**Proposal for Research**  
Submitted to the \_\_\_\_\_ University Institutional Review Board

**I. Research Investigator(s)** (Students must list faculty sponsor first)

**Department(s)** School of Education Graduate Department

Name	Signature	
1. Harold Frye		Major Advisor
2. Margaret Waterman		Research Analyst
3. Jim Foil		University Committee Member
4. Ben Boothe		External Committee Member

Principal Investigator:	Erin Smith
Phone:	913-660-4838
Email:	<a href="mailto:erinbefort@gmail.com">erinbefort@gmail.com</a>
Mailing address:	24112 West 80 <sup>th</sup> Place, Lenexa, KS 66227

Faculty sponsor: Harold B. Frye, Ed.D.  
Phone: 913-344-1220  
Email: [hfrye@bakeru.edu](mailto:hfrye@bakeru.edu)

Expected Category of Review: \_\_\_ Exempt \_\_\_  Expedited \_\_\_ Full

**II: Protocol Title**

Strengths-based Leadership Skills of Doctoral Degree Candidates

**Summary**

**In a sentence or two, please describe the background and purpose of the research.**

School leadership is important to the success of a school district. Studies show a correlation between school leadership and student achievement. Research conducted by the Gallup Corporation has stated that there is no one strength that all effective leaders possess (Gallup,

2014). Gallup found that the most effective leaders are acutely aware of their personal strengths and how to use them to their best advantage.

The purpose of this study is to determine if Baker University doctoral candidates reflect on their five signature strengths, according to results from the StrengthsFinder 2.0 typology instrument (Rath, 2007), when making decisions related to the ISLLC standards.

**Briefly describe each condition or manipulation to be included within the study.**

There will be no manipulations in this study.

**What measures or observations will be taken in the study? If any questionnaire or other instruments are used, provide a brief description and attach a copy. Will the subjects encounter the risk of psychological, social, physical or legal risk? If so, please describe the nature of the risk and any measures designed to mitigate that risk.**

A Likert scale questionnaire will be distributed for use in this study. Questions will ask participants to rank their perceptions of the Strengths Finder typology instrument as a reflection tool when making leadership decisions. An expert panel of five individuals reviewed the survey to add to validity of the instrument. The survey will be distributed using Survey Monkey. A copy is attached.

There is no risk of psychological, social, physical or legal implications.

**Will any stress to subjects be involved? If so, please describe.**

There will be no stress to subjects participating in this study.

**Will the subjects be deceived or misled in any way? If so, include an outline or script of the debriefing.**

The test subjects will not be deceived or misled for the purposes of this study.

**Will there be a request for information which subjects might consider to be personal or sensitive? If so, please include a description.**

Subjects will be asked to share personal decision-making strategies as they apply to the education profession.

**Will the subjects be presented with materials which might be considered to be offensive, threatening, or degrading? If so, please describe.**

The participants in this study will not be presented with materials that could be considered offensive, threatening, or degrading.

**Approximately how much time will be demanded of each subject?**

Subjects will need approximately twenty minutes to complete the survey.

**Who will be the subjects in this study? How will they be solicited or contacted? Provide an outline or script of the information which will be provided to subjects prior to their**

**volunteering to participate. Include a copy of any written solicitation as well as an outline of any oral solicitation.**

The subjects will be Baker University Doctorate of Educational Leadership candidates and graduates, Cohorts 1 – 8. They will be asked to voluntarily participate in this study. Please see the attached written solicitation that will be sent to subjects via their email addresses on file with Baker University.

Script: You are invited to participate in a research study conducted by doctoral candidate, Erin Smith. The purpose of this study is to determine the perceived effectiveness of the StrengthsFinder 2.0 typology instrument in the development of an individual as an educational leader. A second purpose is to determine whether educational leaders reflected on their signature strengths when making decisions. Third, the study looks at the potential impact of time as it relates to leaders' reflection on their five signature strengths when making decisions. The fourth purpose is to determine if demographic variables (age, gender, occupation) impact leaders' reflection on their five signature strengths when making decisions.

Your privacy is important; your answers will be combined with other participants and reported in summary form. Your completion and submission of the survey will indicate your consent to participate and permission to use the information that you have provided in my study.

Thank you for your time.

**What steps will be taken to insure that each subject's participation is voluntary? What if any inducements will be offered to the subjects for their participation?**

Participation is strictly voluntary. Subjects may choose not to participate.

**How will you insure that the subjects give their consent prior to participating? Will a written consent form be used? If so, include the form. If not, explain why not.**

A written consent in the form of an email will be used.

**Will any aspect of the data be made a part of any permanent record that can be identified with the subject? If so, please explain the necessity.**

No aspect of the data will be made a part of any permanent record that can be identified with the subject.

**Will the fact that a subject did or did not participate in a specific experiment or study be made part of any permanent record available to a supervisor, teacher or employer? If so, explain.**

The fact that a subject did or did not participate in a specific experiment or study will not be made part of any permanent record available to a supervisor, teacher or employer.

**What steps will be taken to insure the confidentiality of the data? Where will it be stored? How long will it be stored? What will be done with it after the study is completed?**

To insure confidentiality of the data, doctoral candidates will enter all survey data. Data will be stored on a Microsoft Excel spreadsheet. The data will be stored until the completion of the research study. Following the research study, the excel file will be deleted.

**If there are any risks involved in the study, are there any offsetting benefits that might accrue to either the subjects or society?**

There are no risks involved with this study. There are no offsetting benefits that might accrue to the subjects or society.

**Will any data from files or archival data be used? If so, please describe.**

Data collected from EdD candidates by instructor in course DED 9001 regarding the StrengthsFinder 2.0 will be used. These data are released to the researcher with permission of the instructor. All names will be removed by an individual independent from the researcher, the instructor, and the candidates. Each candidate's data from the StrengthsFinder 2.0 will be assigned a unique number known only to this individual and not to the researcher.

**Appendix C: IRB Approval Letter**

September 11, 2014

Dear Erin Smith and Dr. Frye,

The [REDACTED] University IRB has reviewed your research project application and approved this project under Expedited Status Review. As described, the project complies with all the requirements and policies established by the University for protection of human subjects in research. Unless renewed, approval lapses one year after approval date.

Please be aware of the following:

1. Any significant change in the research protocol as described should be reviewed by this Committee prior to altering the project.
2. Notify the IRB about any new investigators not named in original application.
3. When signed consent documents are required, the primary investigator must retain the signed consent documents of the research activity.
4. If this is a funded project, keep a copy of this approval letter with your proposal/grant file.
5. If the results of the research are used to prepare papers for publication or oral presentation at professional conferences, manuscripts or abstracts are requested for IRB as part of the project record.

Please inform this Committee or myself when this project is terminated or completed. As noted above, you must also provide IRB with an annual status report and receive approval for maintaining your status. If you have any questions, please contact me at CTodden@[REDACTED].edu or 785.594.8440.

Sincerely,  
*Chris Todden EdD*  
Chair, [REDACTED] University IRB

[REDACTED] University IRB Committee  
Verneda Edwards EdD  
Sara Crump PhD  
Molly Anderson  
Scott Crenshaw



**Appendix D: Hypothesis Testing Tables**

Table D1

*Hypothesis 24 - Year of Graduation*

<i>Candidate Reflection</i>	<i>F</i>	<i>df</i>	<i>p</i>
Five signature strengths.	.41	2, 32	.67
Leadership decisions.	1.06	2, 32	.36
Success of all students.	.28	2, 32	.76
Facilitating a vision of learning.	.29	2, 31	.75
Promoting school culture.	.17	2, 32	.84
Promoting an instructional program conducive to student learning.	.29	2, 32	.75
Promoting staff professional growth.	.74	2, 32	.49
Quality management of my organization.	.30	2, 32	.75
Operations of my organization.	.46	2, 30	.64
Resources utilized by my organization.	.31	2, 30	.74
Ensuring a safe, efficient, and effective learning environment.	.88	2, 30	.43
Collaborating with school families.	.28	2, 31	.76
Collaborating with community members.	.28	2, 32	.76
Responding to diverse community interests and needs.	.85	2, 32	.44
Mobilizing community resources.	.59	2, 32	.56
Integrity of my organization.	.42	2, 32	.66
Issues of fairness.	.59	2, 32	.56
Issues of ethics.	.24	2, 31	.79
Politics of my organization.	.12	2, 31	.89
Social issues of my organization.	.09	2, 31	.91
Economic issues of my organization.	.72	2, 32	.50
Legal issues of my organization.	.35	2, 32	.71
Cultural issues of my organization.	.57	2, 29	.57

Table D2

*Hypothesis 25 – Age*

<i>Candidate Reflection</i>	<i>F</i>	<i>df</i>	<i>p</i>
Five signature strengths.	.58	2, 32	.57
Leadership decisions.	.88	2, 32	.43
Success of all students.	1.22	2, 32	.31
Facilitating a vision of learning.	1.06	2, 31	.36
Promoting school culture.	1.22	2, 32	.31
Promoting an instructional program conducive to student learning.	1.01	2, 32	.37
Promoting staff professional growth.	.91	2, 32	.41
Quality management of my organization.	.65	2, 32	.53
Operations of my organization.	.96	2, 30	.39
Resources utilized by my organization.	.86	2, 30	.43
Ensuring a safe, efficient, and effective learning environment.	1.12	2, 30	.34
Collaborating with school families.	.71	2, 31	.50
Collaborating with community members.	.34	2, 32	.71
Responding to diverse community interests and needs.	2.26	2, 32	.12
Mobilizing community resources.	1.06	2, 32	.36
Integrity of my organization.	1.63	2, 32	.21
Issues of fairness.	2.19	2, 32	.13
Issues of ethics.	.34	2, 31	.71
Politics of my organization.	.57	2, 31	.57
Social issues of my organization.	.26	2, 31	.77
Economic issues of my organization.	.10	2, 32	.91
Legal issues of my organization.	.81	2, 32	.45
Cultural issues of my organization.	.36	2, 29	.70

Table D3

*Hypothesis 26 – Current Profession*

<i>Candidate Reflection</i>	<i>F</i>	<i>df</i>	<i>p</i>
Five signature strengths.	.90	2, 31	.42
Leadership decisions.	2.33	2, 31	.11
Success of all students.	2.02	2, 31	.15
Facilitating a vision of learning.	.76	2, 30	.48
Promoting school culture.	1.26	2, 31	.30
Promoting an instructional program conducive to student learning.	1.30	2, 31	.29
Promoting staff professional growth.	1.77	2, 31	.19
Quality management of my organization.	1.54	2, 31	.23
Operations of my organization.	1.61	2, 29	.22
Resources utilized by my organization.	2.60	2, 29	.09
Ensuring a safe, efficient, and effective learning environment.	1.20	2, 29	.15
Collaborating with school families.	2.88	2, 30	.07
Collaborating with community members.	1.38	2, 31	.27
Responding to diverse community interests and needs.	1.27	2, 31	.30
Mobilizing community resources.	1.20	2, 31	.32
Integrity of my organization.	1.52	2, 31	.23
Issues of fairness.	2.21	2, 31	.13
Issues of ethics.	2.91	2, 30	.07
Politics of my organization.	1.40	2, 30	.26
Social issues of my organization.	1.56	2, 30	.23
Economic issues of my organization.	.93	2, 31	.41
Legal issues of my organization.	.61	2, 31	.55
Cultural issues of my organization.	1.74	2, 28	.19

Table D4

*Hypothesis 27 – Gender*

<i>Candidate Reflection</i>	<i>t</i>	<i>df</i>	<i>p</i>
Five signature strengths.	.28	33	.78
Leadership decisions.	.22	33	.83
Success of all students.	.09	33	.93
Facilitating a vision of learning.	.62	32	.54
Promoting school culture.	.43	33	.67
Promoting an instructional program conducive to student learning.	.27	33	.79
Promoting staff professional growth.	-.14	33	.89
Quality management of my organization.	.32	33	.75
Operations of my organization.	.84	31	.41
Resources utilized by my organization.	.19	31	.85
Ensuring a safe, efficient, and effective learning environment.	.64	31	.53
Collaborating with school families.	.08	32	.94
Collaborating with community members.	.42	33	.68
Responding to diverse community interests and needs.	-.05	33	.96
Mobilizing community resources.	.25	33	.81
Integrity of my organization.	.12	33	.91
Issues of fairness.	.12	33	.91
Issues of ethics.	.02	32	.98
Politics of my organization.	.24	32	.81
Social issues of my organization.	.79	32	.44
Economic issues of my organization.	.64	33	.53
Legal issues of my organization.	.49	33	.63
Cultural issues of my organization.	-.37	30	.71